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ABSTRACT

This report discusses the examination of the in-house use of library materials in six Coalition for Public Library Research member libraries and the methods best suited to measure in-house use. Data for the study were collected from adult questionnaires and interviews, the count of materials found on tables, unobtrusive observation, children's questionnaires and interviews, and the Illinois Public Library Cooperative Study. Results of the study indicate that: (1) there is substantial evidence that the number of materials used in libraries is misrepresented and the table count method should be supplemented or replaced; (2) a substantial proportion of library patrons use materials in the library; (3) the average library patron is better educated than individuals in the general population; (4) the largest number of items used in the library are nonfiction; (5) the unemployed place considerable reliance on the library for information; and (6) the best method to measure in-house use is the questionnaire. The text is supplemented by 21 tables, and references are provided. Appendices include summary and analysis tables for the adult questionnaire; adult interview; count of materials used, unobtrusive observation, and Illinois Public Library Cooperative Research Group Study; as well as copies of instructions and the forms used for collecting data. (KM)

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In-House Use of Materials in Public Libraries

by
RICHARD RUBIN

Library Research Center
Graduate School of Library and Information Science
University of Illinois at Urbana-Champaign

for the Coalition for Public Library Research

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Table of Contents

Page

SUMMARY OF THE STUDY 1

CHAPTER 1. BACKGROUND OF THE STUDY 3
  Section 1. History of the Coalition 3
  Section 2. Methodology 10
  Section 3. Assumptions and Limitations of the Study 17
  Section 4. Definition of In-House Use 18

CHAPTER 2. SURVEY OF THE LITERATURE 21

CHAPTER 3. DATA FROM THE ADULT QUESTIONNAIRES 31
  Section 1. Who Uses Materials in the Library? 33
  Section 2. What Types of Materials Are Used in the Library, and by Whom? 47
  Section 3. Do Respondents Who Check Out Materials Differ in Age, Education, Occupation or Sex from Those Who Use Materials in the Library? 54
  Section 4. What is the Ratio of Materials Used in the Library to Materials Checked Out? 57
  Section 5. What Is the Relationship Between In-House Use of Library Materials and Selected Variables? 60

CHAPTER 4. DATA FROM THE ADULT INTERVIEWS 67
  Section 1. Who Uses Materials in the Library? 67
  Section 2. What Types of Materials Are Used in the Library, and by Whom? 78
  Section 3. Do Respondents Who Check Out Materials Differ in Age, Education, Occupation or Sex from Those Who Use Materials in the Library? 83
  Section 4. What is the Ratio of Materials Used in the Library to Materials Checked Out? 86
  Section 5. What is the Relationship Between In-House Use of Library Materials and Selected Variables? 88

CHAPTER 5. DATA FROM THE COUNT OF MATERIALS FOUND ON TABLES, FROM UNOBTRUSIVE OBSERVATION, FROM THE CHILDREN'S QUESTIONNAIRES AND INTERVIEWS, AND FROM THE ILLINOIS PUBLIC LIBRARY COOPERATIVE STUDY 91
  Section 1. Table Count Data 91
  Section 2. Data From Unobtrusive Observation 98
  Section 3. Data from the Children's Questionnaires and Interviews 102
  Section 4. Data from the Illinois Public Library Cooperative Research Group Study of the In-House Use of Library Materials 107

CHAPTER 6. CONCLUSIONS OF THE STUDY 117
Section 1. What Type of Materials Are Used, and Who Uses Materials in the Library? 117
Section 2. What is the Ratio of Materials Used in the Library to Materials Checked Out? 118
Section 3. Can In-House Use Be Predicted Through the Use of Other Variables? 120
Section 4. What is the Best Method for Measuring the Use of Materials in the Library? 122
Section 5. Conclusions and Suggestions for Further Research 130

REFERENCES 137

APPENDICES 139

Appendix A - Summary and Analysis Tables for the Adult Questionnaire 139

Appendix B - Summary and Analysis Tables for the Adult Interview 161

Appendix C - Summary and Analysis Tables for the Count of Materials Used, Unobtrusive Observation, and Illinois Public Library Cooperative Research Group Study 183

Appendix D - Other Summary Tables 195

Appendix E - Samples of Instructions and Forms Used in the Coalition Project 199

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SUMMARY OF THE STUDY

1. There is substantial evidence that the number of materials used in libraries is being underrepresented. Using the technique of counting materials left on tables, the technique suggested by the Output Measures (1982), the average ratio of items used in the library to items circulated was 0.5 to 1 in this study. This is consistent with the findings of in-house use ratios in previous studies in public libraries. In contrast, patron interviews conducted in this study produced an in-house use ratio of 1 to 1 and patron questionnaires produced a ratio of 1.2 to 1. These findings, coupled with methodological problems with table counts, suggest the need to supplement or replace the table count method as a technique for measuring in-house use.

2. A substantial proportion of library patrons used materials in the library. Between 47% and 63% of adult library patrons used materials in the library; the average is 54%. A majority of all library patrons spent less than 30 minutes in the library, but among in-house users a majority spent ½ hour or more. More than 65% of all in-house users were under 40 years of age.

3. The average library patron was better educated than individuals in the general population, although in-house users were no better educated than other library patrons. Between 40% and 50% possessed a bachelor's degree or higher. Approximately one-half of all in-house users identified themselves as either professionals or students.

4. The largest number of items used in the library were nonfiction and the largest number of patrons used nonfiction. Informational users, those who consulted newspapers, magazines and nonfiction books, tended to be males while females represented a disproportionately large number of fiction users.

5. The unemployed place considerable reliance on the library for information. The interviews revealed a disporportionately large number of unemployed individuals who came to the library specifically to get information from a librarian or to use materials in the library.

6. The ability to predict in-house use from such variables as visitor count, number of reference questions asked, FTE of public service staff, and external circulation was very limited. The best approach is to measure in-house use directly.

7. Although all the data collection methods used have advantages and disadvantages, the best method to measure the in-house use of library materials is the questionnaire. The questionnaire is easily administered, ensures that the same questions are asked of all patrons, is relatively inexpensive, and requires little time to complete. In comparison with the table count method, it has the significant advantage of being able to gather additional information about the user, such as age, sex, level of education and reason for coming to the library.

8. There is a need to study the qualitative use of materials within the library. Such a study would provide important information in interpreting the type of quantitative data gathered in this study.

CHAPTER 1

BACKGROUND OF THE STUDY

Section 1. History of the Coalition

The Coalition for Public Library Research is a project of the Library Research Center of the University of Illinois Graduate School of Library and Information Science, in Urbana-Champaign. The Library Research Center has been in existence since 1961 and has done more than 50 studies for such agencies as the Illinois State Library, the National Science Foundation, the National Endowment for the Humanities, and the U.S. Army Corps of Engineers.

The reason for forming a public library coalition was based on the recognition of a common need among public libraries to conduct research into areas of interest to them. Much library research is centered in academic institutions and focuses on academic or special libraries in which the types of services offered, clients served and staff required are quite different from public library work. Consequently, the research conducted in the academic setting often has limited applicability to public libraries. A unique aspect of forming this cooperative relationship between public libraries is to invest control over the research topic in the hands of the public libraries themselves. The Research Center felt that if public librarians were involved in the planning and preparation of library research, then data directly applicable to their type of library would be gathered and analyzed to the ultimate advantage of the library administrators, boards and the public.

In 1983, Herbert Goldhor, the Director of the Center, invited more than 250 U.S. public libraries including State libraries to assume joint sponsorship of research projects of mutual interest. A general invitation was issued to all public libraries through general notices in Library Journal, LJ Hotline and American Libraries. The libraries were informed that members of the Coalition would meet and select a research topic of their own choosing. Although each library's favorite topic might not be researched the first time, it was hoped that a successful first project would lead to subsequent studies by the Coalition. The result was the formation of the Coalition for Public Library Research.

Each of eighteen libraries contributed $1,000 to finance the first project. The Coalition members were Allen County (Fort Wayne, IN) Public Library; Arlington Heights (IL) Memorial Library; Birmingham (AL) Public Library; Buffalo and Erie County (NY) Public Library; Cuyahoga County (Cleveland, OH) Public Library; Dallas (TX) Public Library; Dauphin County (Harrisburg, PA) Library System; Hartford (CT) Public Library; Hennepin County (Minnetonka, MN) Public Library; Iowa City (IA) Public Library; Kern County (CA) Public Library, Metropolitan Library System of Oklahoma City (OK); Minneapolis (MN) Public Library; Newport News (VA) Public Library; Pasadena (CA) Public Library; Public Library of Columbus and Franklin County (OH); Rockingham County (Eden, NC) Public Library; and Sara Hightower Regional Library (Rome, GA).

In addition to public library funding, the Research Center also sought assistance from the Council on Library Resources. The Council's primary purpose is to assist library-related research projects in academic libraries; however, the Council had funded studies in other types of libraries. Dr. Goldhor submitted a proposal to the Council as a one-time request to help establish the Coalition. The grant request for $5,000 was approved.

Additional in-kind assistance was provided by the University of Illinois. It is common for the University to charge overhead costs which comprise a significant percentage of the total funds. In view of the fact that the Research Center would share in the decision of the topic to be studied, this charge was waived. In addition, the Graduate School of Library and Information Science generously made available clerical support at no additional expense to the Coalition.

The decision was made to bring the members of the Coalition together at the American Library Association (ALA) meeting in Dallas on June 24, 1984. In preparation for the meeting, Dr. Goldhor solicited ideas from the member libraries regarding topics of interest and formulated a list of possible topics. Among the research topics offered by Dr. Goldhor were the effects of using a flexible loan period, measurement of unit costs of selected services and work operations, the effects of a summer reading club on children's reading skills, and measurement of in-library use of books and other materials. The member libraries offered such topics as the cost-benefit analysis of telephone reference, what information in a catalog is actually used and how often, and how best to determine the hours of opening of branch libraries.

Representatives from nine member libraries (Allen County, Cuyahoga County, Dauphin County, Dallas, Iowa City, Minneapolis, Newport News, Pasadena, and Rockingham County) attended the meeting. Dr. Goldhor presented an overview of the Coalition and solicited topics for research. Several subjects were discussed, and the group expressed particular interest in collecting hard data on the in-house use of library materials, comparing different methods for measuring the amount of in-house use, and correlating such measures with circulation, number of visitors, and other variables. A general dissatisfaction was expressed concerning the A.L.A. output measures on in-house use because it counted only materials left on tables and the Coalition members suspected that this underrepresents in-house use.

The group identified three other possible methods for collecting the data, viz., questionnaires, interviews, and unobtrusive observation. It was felt that using a combination of techniques would provide a cross-check on any one of them. If, for example, all the techniques produced similar data, then one could be confident that any one of them was as good as any other. If, however, the various techniques produced different results, then the advantages and disadvantages of each could be identified and recommendations made concerning the best one to be used. An additional interest was expressed in testing the 80/20 hypothesis for items used in-house. This hypothesis suggests that 80% of items used come from only 20% of the collection. Consequently, a method of marking items used in the library was developed to assess the significance of repeat uses.

The group also discussed the difficulty in defining "use", raising such issues as whether browsing or glancing at a book cover or record jacket constitutes use. There was a general feeling that as many types of materials as possible should be studied, including fiction, nonfiction, records and other audiovisual materials. Also, the group wished that the sample libraries should represent both urban and suburban areas, that they represent the spectrum of library sizes, and that libraries with branches and main libraries be included along with single libraries. Interest was also expressed in the use of children's materials. Among the demographic characteristics of interest to the group were the user's age, sex, occupation and education. Dr. Goldhor cautioned that the project being proposed was large, and that some limitations in the research design would be necessary. Nonetheless, the general idea of the project was practical.

In order to maintain regular contact with all the members of the Coalition, it was agreed that a quarterly report would be issued to each member reviewing the progress of the research and the financial status of the Coalition, and that meetings of the members would be held at each future A.L.A. annual and midwinter conference.

In response to the decisions made at this meeting, the Center proposed four techniques for collecting in-house use information: questionnaires, interviews, unobtrusive observation, and the counting of materials left on tables. The Center would also collect data on external circulation, the number of reference questions asked, the number of public service staff, visitor count, and the annual amount spent on acquisitions, in the hope that in-house use might be predicted on the basis of one or more of these variables.

Comparison of in-house use and external circulation would provide the libraries with a ratio which might permit one to estimate in-house use based on external circulation. Such a ratio could be quite helpful in annual reports or reports to budgetary agencies. Correlation of in-house use with reference questions might reveal a relationship between the use of library staff and the use of materials in the library. It might answer such questions as: do large numbers of questions also imply large in-house use, or do they reflect little need on the part of the patron to use materials in-house because the librarian is answering the question? Correlation of in-house use with visitor count might provide some information on the reason why patrons come to the library. Large visitor counts with low in-house use might imply that most patrons come to the library to check-out materials rather than to use them in the library, or vice-versa. Correlation of in-house use with acquisitions budgets may provide a crude measure of in-house use and collection quality, and answer the question: do large acquisitions budgets imply relatively high levels of in-house use?

Six of the Coalition libraries were selected to participate in the study. These libraries were the Arlington Heights Memorial Library, Dallas Public Library (including three branches), Dauphin County Public Library, Iowa City Public Library, Minneapolis Public Library (including three branches), and Rockingham County Public Library. A total of 12 agencies were involved. The Arlington Heights (IL) Memorial Library is located near Chicago and according to the American Library Directory has a service population of 66,800, a circulation of 1,134,404 and a budget of $2,726,854 (1983-84). The Dallas (TX) Public Library is a major urban library with a central library and 18 branches. It has a service population of 983,851, with a circulation of 3,874,425, and a budget of $16,562,996 (1984-85). The Dauphin County Public Library is located in Harrisburg, Pennsylvania; the population served is 235,000, with a circulation of 690,278, and a budget of $1,089,017 (1984). The system consists of eight branches with no central library; in this study, the East Shore Area Branch was used. Iowa City Public Library serves a population of 65,000, with a circulation of 574,000 and a budget of $1,121,300 (1984-85). The Minneapolis Public Library and Information Center serves the city of Minneapolis with a central library and 14 branches. Its service population is 371,000 with a circulation of 2,595,421 and a budget of $10,751,430 (1984). Rockingham County Public Library is in Eden, North Carolina. It has a service population of 83,693 with a circulation of 492,268 and a budget of $943,018 (1983-84). The system consists of 5 branches with no central library; for this study, the Eden Branch was selected for participation. Arlington Heights and Iowa City represented city libraries of moderate size and circulation; Dauphin County and Rockingham County county systems; and Minneapolis and Dallas large, urban systems. In addition, the branches selected by the two urban libraries provided a spectrum of patrons. One branch in the Dallas system was specifically selected for its Spanish-speaking patrons, and a Minneapolis branch was selected because of its black population.

In order to maintain regular and consistent communication with each participating library, a contact person and a paid data collector were appointed within each institution. The role of the data collector was (1) to coordinate the overall data collection activities, (2) to recruit and train all paid workers or volunteers to be used in the study, (3) to schedule staff as needed to collect data, (4) to maintain records regarding hours worked by individuals who would be paid by the Coalition, (5) to return all completed forms to the Center, (6) to keep in touch with the contact person in the library, and (7) to make comments, criticisms and suggestions for improving the project to either the contact person or directly to the Research Center. The data collector would undergo a training session by the Research Center so that data collection would proceed as smoothly as possible. The contact person was responsible for communication with the Research Center and for keeping the library administration informed of the progress of the study. Each library selected a data collector and a contact person, and was also responsible for recruiting volunteers to assist in collecting the data.

Between July and October 1984, the Research Center prepared the necessary forms for conducting the study. These included a form for a count of materials left on tables, questionnaires for adults and children, interview schedules for adults and children, and an unobtrusive observation form. Also prepared were guidelines for the data collectors on the use of the forms, and a training manual.

It is usual to do pre-tests on data collection forms, and this was particularly desirable because a related study on in-house use, then being conducted in Illinois, encountered problems with the questionnaire being used. Some thought was given to pre-testing the forms at the participating libraries, but finally it was decided that this would sensitize their users. In addition, time constraints and the need to control the pre-test favored the use of a local library. Consequently, it seemed most practical to select a library near the Research Center. The Champaign Public Library and Information Center agreed to permit the use of the interview and questionnaire forms in that library. A full discussion of the pre-test is presented below in Section 2, Methodology.

On October 26, 1984, representatives from the six libraries participating in the study met in Arlington Heights, IL. The specific purpose of the meeting was to train the data collectors. The meeting agenda included (1) a background history of the Coalition and of the Library Research Center, (2) a description of the study to be conducted including the gathering of hard data, the testing of different methods of data collection, the correlation of in-house use with other measures, and the testing of the 80/20 rule on in-house use of library materials, (3) a description of the data collection techniques to be used including the count of materials left on tables, questionnaires, interviews and unobtrusive observation, (4) a review of the data collection forms themselves and a discussion of the guidelines to be followed in collecting the data, and (5) a discussion of the selection and training of staff including the best or most appropriate use of volunteers and paid workers for specified data collection techniques. The need to recruit and train volunteers was particularly important because of the limited financial resources available to conduct the study.

The data collectors were also involved in a discussion of priorities for data collection techniques. The establishment of priorities was based on several factors: the financial resources available, the number of individuals who could assist in data collecting, and the comparative importance and reliability of some data collection techniques over others. It was determined that primary importance should be placed on the count of materials left on tables, and on the adult questionnaires and interviews. These three techniques promised to provide the most important pieces of information. The count of materials on tables would provide multi-library data that could be compared to other libraries using similar techniques based on the ALA output measures. Also, coupled with the daily circulation figures it would provide a ratio of in-house use to external circulation. The adult questionnaire and interview forms would provide comparative data and establish a different ratio of in-house use to external circulation Lower priorities were established for children's interviews and questionnairs. This was in part based on data obtained from the pre-test (discussed below) which indicated that less confidence could be placed in the responses of children than of adults, using the type of forms developed for the study. Finally, unobtrusive observation was also given low priority, primarily because of its labor-intensive character (see Methodology). Thus, if small numbers of assistants were available, the data collector was authorized to reduce the number of unobtrusive observations.

On December 10, 1984, data collection began in the participating libraries. Data collection continued on one day per month (picked at random) for six months, terminating in May 1985.

Section 2. Methodology

Four techniques were employed in this study to measure the in-house use of library materials: questionnaires, face-to-face interviews, unobtrusive observation, and counts of materials on tables. A fifth technique, which involved placing a dot on materials used by patrons in the library, was included to test in a general fashion the 80/20 hypothesis for use of library materials. This hypothesis contends that about 20% of the library materials account for about 80% of the use (Trueswell). The specifics of each of these methods are discussed below. Copies of the data collection forms and instructions on their use can be found in Appendix E.

The use of several different data collection techniques was particularly important. If only one measure was used, there would always be doubt as to whether the one measure was accurate or whether it always underestimated or overestimated use based on how the measure was applied or on what was being measured. For example, if only the count of materials left on tables was employed, then materials placed on tables and subsequently used while on the table would be counted only once, and materials used but reshelved by the patron would not be counted at all. This would result in a consistent underestimation of the number of materials used in the library. However, if two or more different techniques were used, their results could be compared; if they came up with similar data, then greater confidence could be placed in them.

Each library was given a schedule listing six data collection days--one day in each of six months. An attempt was made to spread the data collection over different days of the week and different parts of the month. The six libraries were separated into two groups: Group I comprised Minneapolis, Rockingham County and Arlington Heights; Group II comprised Dallas, Dauphin County and Iowa City. Assignment to each group was made to provide representation of each type of library in each group. On each data collection day, three libraries were asked to distribute questionnaires, perform table counts and place red dots on materials found on tables; and the other three libraries were asked to conduct interviews and unobtrusive observations, and to perform table counts, and place dots on materials found on tables. In each library conducting interviews and unobtrusive observations, the data collectors were to alternate the techniques on an hourly basis. This would inhibit the potential for boredom and fatigue from repetitive tasks. Dallas did not conduct table counts for the Coalition because it had recently done several such counts; its data were made available for inclusion in the present study.

Questionnaires -- The questionnaires were designed to collect the maximum information which could be requested on both sides of one sheet of paper. It was hoped that material reshelved by a patron or used when found on the library tables would be revealed in the answers to the questionnaire. The requested data were restricted to the in-house use of print materials, and specifically of fiction, nonfiction, magazines and newspapers. Audio-visual materials were excluded from the questionnaire as a practical matter; the form involved a grid which was already complex and it was felt that the addition of various types of A-V materials would increase the length of the questionnaire beyond its one-page format, and threaten the accuracy of the results.

An attempt was made to determine the type, number and duration of use of the specified materials. Duration was measured by whether the respondent indicated that the items were used for "just a minute" or "for a longer period of time." The questionnaire employed these more subjective time periods rather than actual numbers of minutes because it was felt that patron response to such a question was based on a subjective impression anyway. In addition, the questionnaire attempted to provide an impression of use for "just a minute" by describing it as "reading or skimming just a few pages," and "for a longer period of time" as "reading one or more books, articles, or chapters." The questionnaire also asked how many print materials were being borrowed. Respondents were explicitly instructed not to include books that they were going to check out in their count of materials used in-house. The separation of materials checked out and materials used in the library would provide a count of materials used solely in-house. It would also prevent confusion on the part of the patron as to what is included in the in-house section of the questionnaire. Respondents were asked to provide information on the total length of time spent in the library, the main reason for coming to the library that day, their sex, age, occupation, and extent of formal education. Each of these variables would serve as potential correlates of in-house use. It would be possible from these data to determine what type of individual is least likely or most likely to use materials in the library.

Guidelines for the distribution of the questionnaires were developed for the data collectors. These guidelines included such advice to the collector as (1) to request that the patron return the questionnaire to a designated location, (2) to make no comments regarding the purpose of the study and if asked by a patron about the reasons for the questionnaire to indicate only that the library was interested in knowing how patrons use the facility, and (3) to make no comment that would influence the response to particular questions. A separate questionnaire was designed for young people between the ages of 10 and 14, asking approximately the same type of information. Because of the large Spanish-speaking population in Dallas, some of the questionnaires were written in Spanish.

It was also suggested by the Center that an attempt be made to develop a microcomputer software program for the questionnaire. Two libraries--the Dallas Public Library and the Arlington Heights Memorial Library--agreed to use their Apple IIe computers for this purpose. A software program based on the questionnaire was developed. One of its main advantages is the ability to use branching; a patron who had not used materials within the library did not have to confront questions dealing with in-house use, because the program automatically skipped those questions and moved to the next relevant section. Terminals were placed in a public location and volunteers positioned to invite patrons to participate in the survey using the computer.

Interviews -- The interview schedule was designed so that a library staff member or volunteer could quickly gather the same information gained through the questionnaire. Respondents were to be assured that their answers would be kept confidential, and no names or addresses were requested. Interviewers were instructed (1) to select the first patron about to leave the library, and for subsequent interviews to select the very next patron about to leave after they had completed the previous interview, (2) to find locations to interview where there would be a minimum of disruptions, (3) to ask and record responses in a neutral manner, (4) to record responses as they were given rather than to rely on memory, and (5) to treat each patron in the same manner. Additional advice for the interviews of children were to establish eye contact, to explain the directions simply, to rephrase questions when clearly unacceptable answers were given, and to be polite, pleasant and non-condescending.

Count of Materials Used Forms -- Four forms were devised for the counting of materials left on tables: adult print, adult nonprint, children's print, and children's nonprint. The adult print form provided separate categories for nonfiction books, fiction books, reference books, newspapers, magazines, pamphlets (including pictures and vertical file materials), and other print materials. The adult nonprint form provided separate categories for phonodiscs, audio cassettes, 3-track tapes, films (including 16mm, 8mm and filmstrips), video formats (including tapes, cassettes and discs), microfilm, computer software, and other nonprint materials. The children's print form provided separate categories for nonfiction books, fiction books, reference books, easy and picture books, magazines, pamphlets (including pictures and vertical file materials), and other print materials. The children's nonprint form provided separate categories for phonodiscs, audio cassettes and 8-track tapes, films (including 16mm, 8mm and filmstrips), video formats (including tapes, cassettes, and discs), microfilm, computer software, toys (including games and puppets), and other nonprint materials.

Individuals responsible for counting materials were asked to count all materials left on surfaces including the ends of library shelves. The counting was to be done on an hourly basis throughout the entire day. An item was to be considered used if it needed to be returned to its original location. However, the material was not to be counted if it was known that a reference librarian used the material with the patron; if the librarian gave the material to the person to be read, then it would be counted. When in doubt, the data collector was advised to count the material. Items that were bound (such as magazines) or circulated collectively (such as a set of records) were recorded as one item.

A common problem with counting materials on tables is the prevalence of reshelving on the part of patrons. Such actions result in an underestimate of the total in-house use of materials. Each library was asked to provide an ample supply of signs requesting that patrons refrain from reshelving library materials on the designated day of each month. It was hoped that this would limit distortions in the count of library use by patron actions.

Unobtrusive Observations -- The purpose of the unobtrusive observation was to determine by direct observation the type and number of materials used by patrons. The form identified the sex and approximate age of the patron, and if possible the observer was to determine the type of material being used such as fiction or nonfiction, the number of items used, and the nature of the use such as notetaking, reading, or removal of the book for external circulation. The observer also recorded the duration of the observation. Because of the sensitivity of observing individuals' reading habits in a public library, the observers were instructed (1) to ensure that the library administrators were aware of the observations while they were going on, (2) to observe only individuals over the age of 14, and only in the adult sections of the library, (3) to observe a patron only as long as the patron remained in one section, and not to follow the patron, (4) to observe any one patron for no longer than 30 minutes, and (5) to observe no more than two people at the same time.

The Placing of Dots on Library Materials -- When data collectors were counting materials found on tables and other surfaces, they were asked to place an adhesive red dot in a convenient but inconspicuous location on the material (e.g., the back inside cover of a book). The purpose of this was to identify materials that are used repeatedly of all materials used in-house and of all materials in the collection. Although it would have been ideal to count items with red dots on them each month, the data collectors were concerned about the time required to do this. Consequently, only during the last month of data collection, while the data collectors were conducting their hourly count of the materials left on surfaces, were they asked to record on the count of materials used forms how many items left on the tables also had an adhesive red dot affixed to them. This would provide a ratio of materials used at least twice in the last six months to the number of materials used only once on the last survey day.

Pretest of the Questionnaire and Interview Forms -- On October 15, 1984, the interview and questionnaire forms were pretested for a three-hour period in the Champaign (IL) Public Library. The afternoon was selected so that the clientele would include school-age children as well as adults. Both the children's and adult forms were employed. Questionnaires were handed to all individuals 10 years old or older as they entered the building, and they were asked to return the forms to a designated location near the check-out counter before they left. Interviews of adults and children were also conducted on a random basis. The primary purposes of the pretest were to check the clarity of the questions and to ascertain the time required to complete the forms. Following completion of the questionnaire, patrons were asked by the researcher to describe any difficulties they had with the form. Areas of particular interest were (1) the patron's understanding of terms such as fiction and nonfiction, (2) the patron's confidence in actually remembering accurately the number of materials used in the library, (3) the patron's ability to discern the motivation of the study, and consequently give answers based on the expectations of the researchers, and (4) the patron's reaction to the length of the questionnaire. In selective cases, respondents who completed questionnaires were immediately interviewed using the interview form. Although the information obtained was essentially the same, the two-step pretest was used to discover if answers to some key questions differed with the method used.

Fifty adult questionnaires were completed in the pretest. The only major problem occurred when patrons placed checkmarks in spaces that should have had numbers; this occurred in two cases (4%). Ten children's questionnaires were completed, and only one (10%) had checkmarks rather than numbers. It was also observed that when children were given the questionnaires as they entered the library, they wished to fill out the form immediately. Because the children read the questionnaire before using library materials, it may have sensitized their behavior.

Ten adult interviews and nine children's interviews were conducted. The adult interviews were conducted by Richard Rubin, Research Assistant for the Coalition study. The children's interviews were conducted by Dr. Leslie Edmonds, Assistant Professor at the University of Illinois Graduate School of Library and Information Science. Dr. Edmonds is a specialist in children's services, with experience in interviewing children. Although little difficulty was encountered in using the interview form, the interviewers were skeptical that the information obtained from the children was accurate. This was confirmed when children's responses on their questionnaires were compared with interview responses. Particularly notable was that children recorded large numbers of in-house use on the questionnaire, and very small numbers in the interview; the factor was a high as 10 in some cases. Dr. Edmonds expressed skepticism that the children understood the distinction between fiction and nonfiction, or that the children were responding truthfully; rather, they were responding to what the children perceived as the expectation of the interviewer. Comparison of adult questionnaires and interviews revealed only minor differences in responses.

Although subsequent attempts were made to simplify the children's form, the press of time prevented significant restructuring of the data-gathering process for children. As a consequence, the data from children must be evaluated with caution and skepticism.

More generally, both Mr. Rubin and Dr. Edmonds noted that (1) the forms were not appropriate for non-English speakers, (2) mothers with children had a propensity not to fill out the forms because they were preoccupied or in a hurry, and (3) the demeanor of the individual handing out questionnaires appeared to influence the cooperation of the respondent in returning or accepting a questionnaire. These observations were subjective in nature, but were relevant to designing the forms and instructing the individuals who would be disseminating them.

Section 3: Assumptions and Limitations of the Study

When undertaking a study of this type there are assumptions that must be made in order for the study to proceed. Similarly, the methodology and sample drawn in a study carry with them limitations which must be recognized. All research studies have assumptions and limitations. The purpose of this section is to mention the most prominent so that the reader can place the results in their proper context.

It is assumed, for example, that the respondents to the questionnaires and interviews were truthful and accurate when giving their responses. There is the possibility that respondents might inflate the number of items used: e.g., because they have an expectation or belief that they will "look bad" if they say they have not used materials in the library; or because they feel that it would be helpful to the library's cause if they inflate their usage. Inaccuracies may also arise because respondents do not properly recall the number of items used, or because they simply did not fill out the form as instructed. The study assumes that inaccuracies did not occur because of errors in recording data by the respondent or if they did occur that the net effect of the errors would not have altered the results. For example, when errors occurred in recording the number of items used in the library, it is assumed that some mistakenly recorded larger numbers used and some smaller numbers. Despite these assumptions, it must be recognized that data obtained by depending on the recollection of individuals must be treated cautiously. The data and tests of significance used in these circumstances produce results that are suggestive rather than conclusive.

It is also assumed that data recorders such as interviewers, unobtrusive observers and individuals counting items found on tables and other surfaces, correctly followed instructions when collecting the data, and recorded the information completely and accurately.

Finally, it is assumed that the methodology of collecting data one day a month for six months is adequate to reflect the year as a whole. Librarians are aware that library use can differ depending on the day of the week and month of the year. It is presumed that the use of six months and different days provided a sufficient variation. Nonetheless, this is an additional reason for cautiousness in interpreting the data.

Among the limitations of the study is the fact that the number of libraries in the study does not permit generalization to other libraries, even to those of similar size. The sample size is so small (N=6) that it is not possible to conclude that these libraries are in fact representative of the larger population of public libraries, either by size, type, or region of country. Similarly, the sample is self-selected which suggests the possibility that the participating libraries are atypical.

Another limitation is that the methodology used does not permit qualitative judgments concerning the use of library materials in the library. No attempt is made in this study to determine if items used actually met the need of the patron, nor was judgment passed on the value of the needs being met.

There is also a limitation imposed by the definition of "use". Use, for the purpose of the study, does not include browsing of items on the shelves, or items that were taken from the shelf and replaced by the patron. Conclusions concerning these types of "use" can not be drawn from this study.

Section 4: Definition of In-House Use

One of the difficulties of measuring in-house use is defining precisely what constitutes use. Such activities as briefly looking at a book while standing at the shelves, looking at book jackets or fly leaves, scanning the back of a record album, all can be construed as "use" in one sense or another. However, using a definition that would include such activity would make the monitoring or counting of in-house use quite difficult. For this reason, more practical definitions of use were employed depending on the method being used. For the purpose of the count of materials on tables, an item was considered used if it needed to be returned to its proper location. For the unobtrusive observation, the observations involved individuals sitting at tables, therefore, for all intents and purposes, the same definition was used. For both the table count and unobtrusive observation, items being used by reference staff or being returned to the library after external circulation were not counted. For the purposes of the questionnaire or interview, use involved at the very least the "reading or skimming of a few pages." These definitions have both strengths and weaknesses; however, their limitations would more likely result in an underestimation than an overestimation of in-house use. In terms of the present research, a conservative approach is desirable because it inhibits exaggeration of the results.

Summary -- The creation of the Coalition for Public Library Research provides an opportunity for public libraries to identify and study areas of interest that pertain to public library operations. Through the joint sponsorship of the member libraries, it is possible to conduct research so that public librarians can rely not only on their own intuition and experience but also on information collected systematically from several libraries. The methods selected for this study are not the only ones that could be used, but because they are several and varied, it is possible to compare results. In this way, we can be more confident that the results we get are not just a product of the particular method used.

It is unfortunate that there is little information available in the literature that would also help us to compare our results. This is particularly true where public libraries are concerned and demonstrates the need to begin research in this area. In the following chapter, what literature there is will be discussed so that a context for this study will be provided.

CHAPTER 2

SURVEY OF THE LITERATURE

The purpose of an in-house use study must be seen in light of the historical background which has encouraged the development of measures of public library service. Traditionally, a library's performance has been measured in a few ways: through a comparison of national or state standards with the condition of a particular library, through the comparison of certain measures of a given library through time, through annual reports by various divisions and departments, or by an intuitive assessment based on unsystematic observation. The state and national standards as well as the internal measures used by libraries have historically been based on input measures such as income, staff size, collection size, and yearly acquisitions budget.

Standards for public libraries have always presented problems. Do standards apply equally to all sizes of communities and to different types of communities? Do standards represent a minimum level or an ideal level of service? Similarly, traditional input measures do not provide satisfactory evidence of actual performance. Although public libraries have always been concerned about their financial condition, renewed concern developed in the 1970s as taxpayers and public officials demanded greater accountability on the part of public institutions like libraries. This concern concomitantly increased public libraries' interest in developing measures of performance that could justify their existence and their worth to the general public.

Within the context of doubtful standards and a less secure fiscal and political environment, the American Library Association sponsored a study on the development of performance measures for public libraries. This study, conducted under the auspices of the Public Library Association with financial assistance from the U.S. Office of Education, analyzed existing statistical reporting techniques and developed criteria and methodology for data collection and the measurement of library effectiveness. The report, Performance Measures for Public Libraries, published in 1973, under the authorship of Ernest De Prospo, Ellen Altman and Kenneth Beasley, proposed numerous measures of library performance including a calculation for effective circulation that involved a ratio expressed by dividing the total number of materials used in the library by the number of individuals entering the building (DeProspo, p. 38-39).

Despite the publication of Performance Measures for Public Libraries, the traditional measures of public library service remained those most often used. As a consequence, the literature on in-house use of materials in public libraries is scarce. In an unpublished paper, "The Relationship of Books Borrowed to In-Library Use of Books" (1979), Goldhor reviewed several in-house studies, of both university and public libraries. He reported that the North Suburban (Chicago, Illinois) Library System used the DeProspo measures in 29 member public libraries during three days in May 1974. The data were analyzed by comparing the number of recorded loans per hour open to the number of materials used in the library per hour open; the resulting ratio was 1 to 0.5 (Goldhor, p. 5). In 1975, the Library Research Center at the University of Illinois, under contract with the Illinois State Library, applied the DeProspo measures to 66 Illinois public libraries. Total circulation and in-house use of materials were reported for a three-day period; an overall ratio of 1 to 0.4 was found (Goldhor, p. 6). It was noted that "average ratios for libraries grouped by size of population served were as follows: 13 libraries serving less than 5,000 persons each, 1 to 0.38; 14 from 5,000 to 15,000 persons, 1 to 0.32; 9 from 15,000 to 20,000 persons, 1 to 0.60; 16 from 20,000 to 50,000 persons, 1 to 0.43; and 14 from 50,000 to 100,000 persons, 1 to .44." Based on these data, Goldhor speculated that 1 to 0.5 was a reasonable minimum ratio of materials checked out to materials used in the library for public libraries.

A more general shift to output related measures among public libraries came with the decision of the American Library Association to discontinue the use of national, quantitative, public library standards and to substitute a planning process in which the local public library defines its mission, goals and objectives in terms of local community needs. This resulted in the publication in 1980 of The Planning Process for Public Libraries authored by Vernon Palmour, Marcia

Bellassai and Nancy DeWath. The report focused on the goals and objectives of the individual public library in the light of the unique mission of a public library within its community. Measuring a library's performance no longer depended on comparing the local library to national standards; rather it depended on how the library met its own goals and objectives. The measurement of how the library met its community goals required a shift to measures that reflected actual use by the community. The Planning Process for Public Libraries did not provide actual measures of performance, but sought to identify and explain techniques for soliciting information from various resources. These techniques emphasized staff, user and community surveys.

The need to develop actual measures of output was obvious. In 1982, the Goals, Guidelines and Standards Committee of the Public Library Association attempted to remedy this gap through the publication of Output Measures for Public Libraries: A Manual of Standardized Procedures. The authors, Douglas Zweizig and Eleanor Jo Rodger, identified twelve measures of library service. One was the in-house use of library materials. This measure was to be calculated by annualizing the number of materials used in-house in a few sample days and dividing it by the population of the service area. The number of materials used in-house was determined by counting the number of items that were to be returned to shelves or files excluding items returned from circulation. Generally this meant items found on tables and other surfaces. The amount of literature on in-house use since the publication of the Output Measures is still quite small, but the influence of the publication is obvious because discussion of in-house use in the literature most often occurs within the context of a more general analysis of the other output measures.

The difficulty in developing good measures of library output stimulated explorations into improved measures which could be used not only to evaluate the local library but to compare it with other libraries. To this end, Daniel O'Connor (from the Graduate School of Library and Information Studies at Rutgers) attempted to design measures using standard scores which would provide for comparability. His effort was reported in Library Research in 1982. Among the measures developed was one of in-house use. The measure was tested under the sponsorship of the Library Development Bureau of the New Jersey State Library in a survey of 96 public libraries within the state. The techniques for data collection were based on the methods proposed by DeProspo. Of particular interest in terms of in-house use research was the reported overall ratio of in-library use to external circulation, 0.44 to 1. O'Connor also reported in-library use per capita for ten "representative libraries." These scores ranged from 0.02 in-house uses per capita to 11.42, with a mean of 2.29. Though O'Connor did not report a ratio of in-house use to external circulation for the representative libraries, the data were converted by the present author to reveal the in-house use ratios of the 10 representative libraries to be 0.04, 0.08, 0.11, 0.25, 0.31, 0.32, 0.41, 0.80, 0.83, and 1.33. Their mean 0.45 does not deviate substantially from Goldhor's ratio of 0.5 to 1.

One subject of interest is the possible differential use of in-house materials in urban and suburban libraries. In 1982 Ralph Gers reported on this as part of a study conducted by the Division of Library Planning and Development of the Maryland State Department of Education. Both urban and suburban Maryland public libraries were used to measure success in providing materials to library users. Among the data gathered were three categories of book use: people seeking specific titles, people seeking subjects, and people browsing. Gers noted that in-house use was substantially larger in urban libraries where patrons were seeking specific subjects, than in suburban libraries. Overall, Gers noted that internal use of materials in urban libraries was "substantially larger than the number of materials used in the suburban outlet" (p. 78). This result occurred despite considerably higher external circulation among suburban libraries.

Possible confirmation of the differential use of material in libraries based on urban-suburban settings is also found in the report of a study of in-house use of materials conducted by the Hamilton (Ont.) Public Library in 1982. Four types of data were collected and correlated: a count of all patrons exiting each floor of the library, a circulation count, a count of information queries, and an in-house volume count which consisted of the number of materials which had not been reshelved. The survey was conducted on three randomly selected days for each floor of the central library and in each branch. Among the findings was that the ratio of in-house use to external circulation in branches was measurably lower than at the central library, 0.18 to 1 compared to 0.71 to 1. When in-house use per patron was studied, this pattern was reinforced with in-house use in branches reported at 0.4 items per patron in contrast to 0.8 items per patron at the central library. The Planning Committee attributed the differential to the large reference collection at the main library. Additional findings of the study included: (1) 71% of the in-house use at the central library involved use of the reference collection; (2) there was a "strong relationship" between information queries and in-house use at the central library; and (3) few patterns could be established for branch libraries, but there appeared to be a strong relationship between the number of patrons coming to the library and in-house use, recorded circulation and the number of information queries. Such findings promote speculation that there is a direct relationship between in-house use and reference questions, or size of reference collection.

There is no evidence in the literature that a U.S. library has published a similar study. However, Douglas Zweizig (from the School of Library and Information Studies at the University of Wisconsin-Madison) has examined data for 1983 on output measures, supplied by 142 public libraries. These data were provided in response to a request by the Public Library Association for libraries to supply their data on output measures. Zweizig divided the libraries into single outlet and multiple outlet libraries. Jurisdiction populations of single outlet libraries ranged from 1,377 to 154,916 with the average 29,073; the multiple outlet libraries ranged from 19,200 to 783,310 with an average of 212,375. Because the output measures proposed by the Public Library Association requested that in-house use be measured per capita, Zweizig reported the data in this fashion. Per capita in-house use for single outlet libraries had a range of 0.05 to 9.30 per capita with a median of 1.96. For multiple outlet libraries the in-house use per capita ranged from 0.12 to 6.48 per capita with a median of 2.2. By comparing the median number of items used in-house (1.96) with the median number of items circulated externally (5.60), a ratio of in-house use to external circulation can be estimated to be 0.35 to 1 for single outlet libraries; for multiple outlet libraries the ratio is .42 to 1.

It is obvious that the literature on the in-house use of library materials in public libraries is sparse and incomplete. Little attention is paid to in-house use specifically. Rather, it is analyzed in the context of a variety of other output measures. Most conspicuously in the findings of in-house use among public libraries is the relatively modest number of materials used in-house when compared to external circulation, often falling well below a one-to-one ratio. Such a finding differs greatly from in-house use results in academic and special libraries.

Bush, et al., conducted a study of persons using the Science Library of MIT in 1955. Half of all users were asked to complete a questionnaire on what they had done in the library. There were 2,700 responses with 4,068 books, periodicals and reports used in the library and 457 taken out, a ratio of 8.9 to 1. This could be accounted for by the specialized subject matter that lends itself to reference type use. More moderate ratios were found by Fussler and Simon, who placed questionnaires in 2,089 monographic and serial volumes in selected areas of the University of Chicago Library stacks, requesting users of these volumes to provide some information. There were 654 returns from questionnaires in physics books and 175 from those in history books. In the years 1954-1958, these 2,089 volumes had been borrowed 1,950 times, while in the six months of the questionnaires they were used 295 times in the stacks. Since 1,950 is the total for 5 years, the average use for half a year is 195, which results in a ratio of 1.5 to 1 (in-house use to recorded loans).

In 1964, Jain counted the number of books in Dewey classes 330-379 which were returned to the Purdue University Library from home use, and also the number of books in these classes which were left on the library tables. The number of returned items was 1,525, the number found on tables 891, an in-house to external circulation ratio of 0.6 to 1. In 1966, Jain reported the number of recorded loans of monographs from the Physics and Chemistry Libraries of Purdue University, and the number of volumes left on the tables of the same two libraries. The figures were 1,961 and 1,247 respectively, an in-house ratio of 0.6 to 1. This ratio was substantiated by McGrath in 1970; he counted the number of books which were borrowed for home use from the Library of the University of Southwestern Louisiana, and the number of volumes which were used in the library. The number of materials used in the library was 4,532, the number borrowed 8,954, a ratio of 0.5 to 1.

Urquhart and Schofield in 1972 reported on a two-week study of readers in three unnamed English universities. Patrons leaving the libraries were asked at random times to complete a questionnaire on what they did in the library. At university A, there were 1,442 returns by readers using library books, and the reported ratio of in-library use to ex-library use was 1.6 to 1; at university B there were 658 returns, and the ratio was 6.7 to 1; and at university C, 139 returns and a ratio of 11.2 to 1. The data also suggested that counting materials found on tables gives a lower number of items used than does the questionnaire method. At university A, respondents estimated that 532 volumes had been used in the library and 512 were counted as left on tables; in B and C, there were larger but unspecified differences.

In 1974, Harris reported data based on slips that were placed in 2,400 books in four subject areas of the Newcastle-upon-Tyne Polytechnic Library. If a book was used at all, the slip would be removed or disturbed. Upon examination of the books after seven weeks, 252 (10%) could not be found and were assumed to be on loan, 964 (40%) had undisturbed slips, and 1,184 (49%) had missing or disturbed slips. Of those 1,184, 62 (5%) had been stamped in a distinctive fashion to indicate reshelving after being found on reading tables, and another 5% were estimated by the author to have been borrowed for home use and returned. The ratio of the number of titles known to be reshelved to the number of titles borrowed for home use is 0.2 to 1. In a related study that same year in Newcastle Polytechnic, 8,483 volumes were examined and their circulations and reshelving stamps counted for the previous 19 months. In all, 3,886 books had been borrowed 10,567 times, and 1,549 books had been reshelved 2,445 times. The ratio of recorded in-library use to circulation was 0.2 to 1.

Saracevic reported in 1974 on a study conducted at the Sears Library (for science and technology) at Case Western Reserve University. He concluded that "44 percent of books used at Sears Library in the fall of 1974 were through loan and 56 percent were used in house" (p. 15). This is a ratio of in-house use to circulation of 1.3 to 1. In 1976, Kent collected data on books left on reading tables of the Hillman Library, the main library of the University of Pittsburgh. The total of such in-house uses, projected to a year, was 351,067; the average annual circulation for home use of books for 1969 through 1975 was 204,818. This is an in-house ratio of 1.7 to 1.

There are reports in the literature on whether the materials checked out are also the materials used in the library. In 1978, Hindle and Buckland explored this relationship at the University of Lancaster Library. They found a positive correlation between circulation and in-house use; "books that circulate little get relatively little in-house use and the higher the circulation the higher the level of in-library use" (p. 270). In 1981, Hayes analyzed data from the University of Pittsburgh study, and found (contrary to Hindle) that circulation was not a good index of use, especially in-house use.

In-house use has, at least in one case, also been explored as it relates to the 80/20 rule. This rule, first proposed by Trueswell, asserts that about 80% of the transactions (items circulated) come from about 20% of the collection. Although Trueswell does not specifically apply this formula to items used in the library, Tibbetts attempted to confirm this rule for the in-house use of bio-medical periodicals at the University of Minnesota. Tibbetts collected data based on items found on study and reshelving tables, and reported that the data supported a ratio closer to 70/30.

Of course, it is possible that all ratios of in-house use are affected by the methods of data collection. Goldhor compared in-house use methods of studies conducted in academic and in public libraries. He reported that the largest in-house use ratios came from patron questionnaires (an average of 7.1 to 1); stack browsing methods had the next highest ratios (an average of 2.7 to 1); and counting materials found on tables had the lowest (0.5 to 1).

Research on in-house use of materials in libraries is almost always conducted at a single site, and mostly in academic settings. More study needs to be done in public libraries and using several libraries so that comparative data can be gathered.

CHAPTER 3

DATA FROM THE ADULT QUESTIONNAIRES

Data from the adult questionnaires provided a considerable body of material for analysis. A summary of questionnaire responses is found in Appendix A-1. The analysis could proceed along many different paths, but it was necessary to focus on a few key questions. Among these questions were the following:

Who uses library materials in the library?

The approach taken in this chapter was to compare users and non-users of library materials on several variables. These variables included age, occupation, gender, and level of education. One might presume, for example, that in-house users are better educated because they are more likely to be students or scholars doing research. Associated with the educational factor, one might presume that younger people are more likely to use materials in the library because the library is used to do school assignments; or that professional people are more likely to use materials in the library because of their propensity to read. The question was also analyzed in terms of gender differences. Do males use more materials in the libraries than females? Are females more likely to check out books than to use materials in the library? To the extent that the questionnaire data could provide insight into such questions, this study attempted to answer them.

What types of materials, how much material, and for how long are materials used in the library?

It is important not only to know who uses materials in the library, but what materials are being used, in what quantity and for how long. Knowledge about the types and volume of materials used provides information to the library regarding how the collection is being used; it may reveal strengths and weaknesses of a collection, and how patrons actually use libraries when they are there. As in the question concerning who uses the library, an effort was made to determine if library materials are used differently on the basis of age, gender, level of education and occupation. It is to be assumed that better educated people are more likely to experience heavier use of library materials in the library. Do males use different types of materials than females? In an attempt to answer these questions, cross-analyses were performed to determine if significant differences in the number of materials used occurred by education, age, profession and gender.

The duration of use was also studied in the questionnaire. Duration was studied in two ways: duration of particular items used, and duration of stay in the library as a whole. Duration is important particularly in regard to suggesting the qualitative use of the library materials. If individuals used materials in the library for only a minute or so, it is less likely that the use was for research or other types of serious study; this would be similarly true if the patron's entire stay was very brief. The analysis of the questionnaire data therefore included comparisons not only of in-house and non-in-house users, but also comparisons between in-house users who stayed in the library for thirty minutes or less and those who stayed for more than 30 minutes.

It was recognized that it is difficult for patrons to remember precisely how long they used a given item, so duration was broken down into two categories: items used for "just a minute" and items used "for a longer period of time". When describing and analyzing the data on duration, the terms "short-term use" and "long-term use" are used to describe these categories.

What is the relationship between the number of materials used in the library and other selected variables?

In addition to understanding who uses materials in the library, and what types of materials are used there, it is useful to be able to predict the size of in-house use. The reason is manifest: in-house use is a measure of the library's service to the community. At a time when all public service institutions are being held accountable, it would be useful for the library administrator to be able to provide an accurate report of a vital library service. Traditionally, circulation has played a prominent role in measuring library service. Despite its value as a measure, it is only part of library use; in-house use is another. However, measuring use takes time, staff and money. This study explored the possibility that in-house use could accurately be estimated through other variables which are often collected by libraries already. The variables used in this study include visitor count, number of reference questions asked, and FTE of public service staff. The questionnaire provided data on the number of materials used in the library and one measure of external circulation (i.e., the number of materials the respondents stated they checked out). These data were correlated with the other variables provided by the participating libraries in an attempt to determine if a fixed relationship between any of the variables and the number of materials used in-house could be identified. If such a relationship could be found, then the library need not spend the time or money to measure in-house use directly.

This study has adopted a special focus on one of the variables: external circulation and its relationship to in-house use. Previous studies attempted to establish a ratio of in-house use to external circulation (see Chapter 2, p. 21-29) and because of the data collection methods used to determine in-house use, there was some doubt as to the accuracy of this ratio. As a consequence, the ratio of in-house use to external circulation was calculated based on the number of items the respondent claimed to check out and those the respondent claimed to use in the library.

Section 1. Who Uses Materials in the Library?

There was a total of 6856 usable questionnaire responses (Appendix A-1). Tables 3-1 and 3-2 show the number of responses by library for all respondents. The greatest number of responses was gathered from the Minneapolis Public Library, 47% of the total received. This was followed by Iowa City, Dallas, Arlington Heights, Dauphin County, and Rockingham County. In Minneapolis, the central library provided 64% of the system's total. This was reversed in Dallas where the branches accounted for 83% of the system's responses; in part this is the result of some unforeseen difficulties encountered in using the computer questionnaire at the Dallas central library (see Chapter 6, p. 125-126).

Table 3-1

NUMBER OF QUESTIONNAIRE RESPONSES BY LIBRARY

Library	Number/% of Total
Arlington Heights	749/11%
Dallas system subtotal	(832/12%)
Dallas central	171/ 2%
King Branch	68/ 1%
Oaklawn Branch	342/ 5%
Audelia Branch	251/ 4%
Dauphin County	608/ 9%
Iowa City	1114/16%
Minneapolis system subtotal	(3218/47%)
Minneapolis central	2080/30%
Franklin Branch	337/ 5%
Northeast Branch	319/ 5%
Washburn Branch	482/ 7%
Rockingham County	335/ 5%
Total	6856/100%

The distribution of questionnaire responses was also examined for in-house users only. The percentages of all in-house users and those in-house users who were in the library for 30 minutes or more were similar to the distribution for all respondents (Table 3-2). It is clear that there is a sizeable percentage of individuals in each library who use materials while they are there. An average of 63% of all respondents used materials in the library. Size of library appears to have some relationship to the percent of in-house users, in that the smallest libraries (Rockingham County and Dauphin County) exhibit the lowest percentages. This pattern is not, however, sustained with the larger libraries; Arlington Heights and Iowa City have higher percentages than Dallas. Nonetheless, it is notable that even in the smallest of libraries in-house users comprise more than one-half of all library users. Similarly, approximately one in three in-house users were in the library for longer than 30 minutes suggesting that a sizeable number of patrons are making substantial use of materials in the library.

The percentage of users is an overestimate if individuals who came to the library for short periods of time, perhaps to return materials only, would not have taken the time to complete the questionnaire. The degree to which such individuals affected these data is unknown.

Table 3-2

NUMBER OF RESPONDENTS WHO USED MATERIALS IN THE LIBRARY BY LIBRARY

Library	Number of Responses/ % of Total / % of All Respondents from Library	30 Minutes or More Number of Responses/ % of Total / % of All Responses from Library
Arlington Heights	488/11%/65%	247/10%/33%
Dallas System	487/11%/59%	254/11%/30%
Dauphin County	342/8%/56%	177/7%/29%
Iowa City	674/16%/61%	397/17%/36%
Minneapolis System	2150/50%/67%	1214/51%/38%
Rockingham County	175/4%/52%	93/4%/28%
Total	4316/100%/63%	2382/100%/35%

The length of time spent in the library by all respondents and by in-house users is reported in Table 3-3. The data suggest that most individuals who come to the library stay only briefly and that the number of patrons diminishes as time spent in the library increases. Among all respondents, more than one half (54%), were in the library for less than 30 minutes and 94% completed their stay in less than two hours. Such brief visits can be accounted for by individuals who come to the library simply to check out or return items. (55% of all respondents indicated that their primary reason for coming to the library was to accomplish these tasks.) However, it can not be assumed that all short-term users (under 30 minutes) fail to use materials in the library. 52% of individuals in the library for less than 30 minutes also used materials in the library, suggesting that relatively quick use of items either through browsing or easily answered informational queries were involved. Less optimistically, it may also suggest that the patron could not find the information desired and stopped looking. As might be expected, the duration of time spent in the library increased when in-house users were segregated from non-in-house users. In-house users stayed longer with nearly one-half (49%) staying in the library between 30 minutes and 2 hours.

Table 3-3

DISTRIBUTION OF RESPONSES BY AMOUNT OF TIME SPENT IN THE LIBRARY

Time Spent	All Responses/ % of Total	In-House Users: Number/ % of Total	In-House Users: % of All Responses
Less than 30 minutes	3670/54%	1896/44%	52%
1/2 to 2 hours	2697/40%	2085/49%	77%
More than 2 but less than 4 hours	306/ 5%	230/ 5%	75%
4 or more hours	92/ 1%	67/ 2%	73%
Total	6765/100%	4278/100%	63%

When analyzing the respondents by age, it must be kept in mind that one category (15-19 years old) is much narrower than the others. This age group in part accounts for what might be considered the high school and young adult groups. Approximately 9% of the respondents are in this category (see Table 3-4).

The age category with the largest number of respondents is the 20-39 year olds (57% of the total): 12% reported being 60 and over which corresponds with the 9% figure for retirees. Among young people (15-19 years of age), a disproportionately large number (32%) came to complete a school assignment (Appendix A-3). Only a small percentage of young people said they came to use materials in the library. It is very likely, however, that young people indicated school assignment as their primary reason and that intentional in-house use is significantly understated. Materials were used in the library by a higher proportion of 15-19 year olds than of any other age group (see Table 3-4). When individuals who used the library for more than 30 minutes are examined separately, the percentage of in-house users in the 15-19 age group becomes even more pronounced. Nonetheless, the percentage of in-house use for 30 minutes or more is considerable for all age groups falling between 32% and 44% of all respondents in each category. Although the reasons for the use of library materials can not be easily ascertained simply by knowing the age of the patron, use in at least one

Table 3-4

DISTRIBUTION OF RESPONSES FOR ALL RESPONDENTS, IN-HOUSE USERS AND NON-IN-HOUSE USERS BY AGE GROUP

		Respondents Using Materials in the Library		
		All	30 Minutes or More	Non-In-House Users
Age Group	Number of Responses/ % of Total	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category
15 - 19	569/9%	381/10%/67%	252/11%/44%	188/8%/33%
20 - 39	3679/57%	2325/58%/63%	1287/58%/35%	1354/57%/37%
40 - 59	1398/22%	858/21%/61%	446/20%/32%	540/23%/39%
60+	757/12%	454/11%/60%	248/11%/33%	303/13%/40%
Total	6403/100%	4018/100%/63%	2233/100%/35%	2385/100%/37%

age category, 20-39, may be linked to family responsibilities. Of all the respondents who indicated that their primary reason for coming to the library was to bring children, 73% were from this age group. This compares with a 57% representation of this age group overall. In contrast, few of the older adults (60+) came to the library to bring children or do class assignments; rather, approximately one-third came either to attend a meeting or a program (19% and 14% respectively). It appears that a substantial type of in-library use by older adults is not associated with materials but with use of other facilities. In fact, only 12% of individuals 60 years of age or older indicated in-house use of materials their reason for coming.

A review of the data on educational levels indicates overall that the respondents are fairly evenly distributed between educational categories (see Table 3-5). A considerable proportion of respondents, almost one in four, have no greater education than high school, and over one-half of the respondents possess less than a bachelor's degree. This compares to 19% of the U.S. population, 25 years or older, who possess a bachelor's degree or more (Statistical Abstract 1986). These data, therefore, confirm previous findings that public libraries serve a disproportionate number of better educated individuals. However, these public libraries also serve a substantial number of individuals who have less than a bachelor's degree, many with a high school education or less. When the educational levels are analyzed by gender, it is found that females are overrepresented among the lower educational categories and males overrepresented in those involving the bachelor's degree and above (Appendix A-8). When we analyze the educational level of individuals who use materials in the library, we find that the respondents, whether they are in the library briefly or for longer periods, are distributed in almost identical fashion to the overall group of respondents.

The distribution of occupations exhibits the predictable pattern of use by individuals in professional positions (see Table 3-6). The largest number of respondents are in the professional category, followed by students; together they comprise over one-half of the total. This is consistent with the analysis by educational level and suggests

Table 3-5

DISTRIBUTION OF RESPONSES FOR ALL RESPONDENTS, IN-HOUSE USERS AND NON-IN-HOUSE USERS BY LEVEL OF FORMAL EDUCATION

		Respondents Using Materials in the Library		
		All	30 Minutes or More	Non-In-House Users
Level of Education	Number of Responses/ % of Total	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category
Grades 1-12	1550/24%	932/23%/60%	509/23%/33%	618/26%/40%
1-2 years of college	1079/17%	698/17%/65%	407/18%/38%	381/16%/35%
2 or more years of college, no degree	840/13%	535/13%/63%	304/14%/36%	305/13%/36%
Bachelor's degree	1241/20%	781/19%/63%	423/19%/34%	460/20%/37%
Graduate work	731/12%	453/11%/62%	258/12%/35%	278/12%/38%
Master's or Ph.D	924/14%	609/15%/66%	330/15%/36%	315/13%/34%
Total	6365/100%	4008/100%/63%	2231/100%/35%	2357/100%/37%

Table 3-6

DISTRIBUTION OF RESPONSES FOR ALL RESPONDENTS, IN-HOUSE USERS AND NON-IN-HOUSE USERS BY OCCUPATION

		Respondents Using Materials in the Library		
		All	30 Minutes or More	Non-In-House Users
Occupational Group	Number of Responses/ % of Total	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category
Professional	1934/30%	1226/31%/63%	634/28%/33%	708/30%/37%
Manager	296/5%	199/5%/67%	104/5%/35%	97/4%/33%
Skilled or unskilled worker	654/10%	421/10%/64%	222/10%/34%	233/10%/36%
Clerical or sales worker	613/10%	375/9%/61%	190/8%/31%	238/10%/39%
Student	1334/21%	870/22%/65%	560/25%/42%	464/20%/35%
Homemaker	615/10%	309/8%/50%	143/6%/23%	306/13%/50%
Retired	581/9%	361/9%/62%	228/10%/39%	220/9%/38%
Unemployed	334/5%	238/6%/71%	151/7%/45%	96/4%/29%
Other	16/*	12/*/75%	4/*/25%	4/*/25%
Total	6377/100%	4011/100%/63%	2236/100%/35%	2366/100%/37%

* less than 1%

that library use as an educational institution is ubiquitous. It is instructive to note that the professional category is somewhat higher than might be predicted if the educational breakdown is accurate. This suggests that individuals who indicate that they are professionals may not do so as much on the basis of level of education obtained as of self-image. Certainly, the term "profession" is no longer applied strictly to medicine, law and a religious calling. The fact that a substantial number of patrons may perceive themselves as professionals may be as important to the nature of library service in terms of expectations of service and materials as the actual position held. Several occupational groups have about the same percentage of respondents--10% each, viz., retired individuals, homemakers, skilled and unskilled workers, and clerical workers.

The professional respondents indicated most often that their primary reasons for coming was to check out library materials (40%), and to return materials (22%) (Appendix A-2). A large percentage of the professionals fell within the 20-39 age group (65%), and 54% were male. Among skilled and unskilled workers, three reasons for using the library predominate, with 37% coming to check out materials, 24% to use materials in the library, and 17% to return materials. Clerical workers and retirees also confirm the same three reasons for using the library; to check out materials is the reason given by the largest proportion of respondents in each of these categories.

A large percentage of the respondents identified themselves as students (21%), and only individuals 15 years of age and older were queried. Even so, a high level of use among adult students is confirmed by the data. Among individuals identifying themselves as students, the most frequently given reason for coming to the library is different from that of other occupations. A high proportion (32%) stated that their primary reason for coming was to do a school assignment, and next most often to check out materials (30%), and to use materials in the library (17%). Homemakers also exhibit a slightly different set of reasons for library use. Although they indicated that their two most frequent reasons were to check out or return materials, their third most frequently stated reason was to bring their children to the library (16%). In-house use of materials represented only 6% of their responses.

Approximately 5% of the respondents identified themselves as unemployed. Because of the general unpopularity of such a designation, this percentage is probably an understatement. Although we have no hard data to indicate that their presence in the library was directly related to their lack of employment, the responses of those who said they were unemployed, regarding their reasons for using the library, are different from those of other occupational groups. The most frequently stated reason for coming was to use material in the library (39%)! This is more than 15 percentage points higher than that of any other occupational group. In-house use is followed by checking out materials (25%) and returning materials (14%). A high percentage (70%) were males between the ages of 20 and 39. Such a finding suggests that the unemployed, representing 1 in 20 library patrons, may well depend more on the reference and informational materials of the library than do other occupational groups.

When the distribution of respondents who used materials in the library is examined separately, there are no major differences in occupation from the total group of respondents. Overall the differences between those who used materials in the library and all respondents are so slight that the former can be considered representative of the latter by occupation.

However, among in-house users certain occupational groups use the library for longer periods of time. This may indicate different types of in-house use. For example, approximately one-half of all professionals, managers, clerical workers, and homemakers who used materials in the library were in the library for 30 minutes or more. This compares to two-thirds of the students, unemployed and retired patrons who used materials in the library for 30 minutes or more. The longer use by students suggests the need for greater information, perhaps doing school assignments; the unemployed and retired patrons may, in fact, be using the library for recreational purposes, reading books or newspapers as well as for informational purposes. Analysis of the occupational categories also reveals that although two in three patrons from each occupational level use materials in the library, homemakers have disproportionately small in-library use; only 50% use materials in the library.

Analysis of the reasons for coming to the library provides confirmation of the previous data (Table 3-7). It should be kept in mind that although only one reason ("to use materials in the library") directly expresses the concept of in-house use, some of the other reasons imply use of materials in the library in a significant number of cases. For example, when individuals indicated that they came to do a school assignment, it is likely they consulted library materials in the process; this is similarly true, though less so, for individuals who are coming to the library to get information from a librarian, or who are bringing children to the library. This is borne out by the fact that a majority of patrons who indicated that they came to the library to bring children, do school work, or get information from a librarian were, in fact, likely to use materials while there. Among all respondents, the largest percentage of individuals indicated that the primary reason for coming to the library was to check out materials; this was followed by those who said they were coming to use materials in the library, and by individuals who came to return library materials. Approximately half as many individuals come to use materials in the library as those who check them out.

Although 21% of the respondents indicated that they were students, only 32% of the students said that they came to complete school assignments (Appendix A-2). This suggests that a large number of students come to the library for nonacademic purposes, possibly for recreational materials. Predictably, among all the individuals who indicated that they came to the library to do a school assignment, 76% were students; interestingly, a majority of these respondents (51%) reported that they were between the ages of 20 and 39, with 42% between 15-19. It is possible that more college than high school students use the public library; it is also possible that some of the college-age individuals are completing their General Equivalency Diplomas.

Few of the respondents (3%) indicated that they came to the library to get information from a librarian (Appendix A-3). This may suggest that librarians are not widely perceived as people from whom to get information. Of course, this figure does not take into account the substantial number of relatively simple informational inquiries made by

Table 3-7

DISTRIBUTION OF RESPONSES FOR ALL RESPONDENTS, IN HOUSE USERS, AND NON-IN-HOUSE USERS BY REASON FOR COMING TO THE LIBRARY

		Respondents Using Materials in the Library		
		All	30 Minutes or More	Non-In-House Users
Reason	Number of Responses/ % of Total	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category
Return materials	1205/19%	604/15%/50%	221/10%/18%	601/25%/50%
Bring a child	297/5%	175/4%/59%	108/5%/36%	122/5%/41%
Attend a program	115/2%	43/1%/37%	39/2%/34%	72/3%/63%
Do school work	563/9%	373/9%/66%	269/12%/48%	190/8%/34%
Get information from a librarian	168/3%	116/3%/69%	66/3%/39%	52/2%/31%
Meet someone	100/2%	48/1%/48%	26/1%/26%	52/2%/52%
Attend a meeting	58/1%	30/1%/52%	18/1%/31%	28/1%/48%
Check out materials	2268/36%	1430/36%/63%	709/32%/31%	838/35%/37%
Use materials in the library	1245/20%	1077/27%/87%	720/32%/58%	168/7%/13%
Other	356/6%	112/3%/31%	55/2%/15%	244/10%/69%
Total	6375/100%	4008/100%/63%	2231/100%/35%	2367/100%/37%

telephone. Those who stated that they were coming to the library to get information from a librarian are predominantly male (57%) and in the 20-39 age group (66%). There are no marked differences in occupational representation between this group and all the respondents.

Only a very small proportion of respondents stated that they came to the library to attend a program or meeting (less than 3% combined). When meeting attendees are examined, professionals dominate with 25%, following by equal percentages of skilled/unskilled workers, students, and retirees. The dominant age group is 20-39 (56%), with females comprising the larger percentage (69%). This pattern is slightly different in the case of individuals attending a library-sponsored program. Although professionals still represent the largest percentage (27%), they are closely followed by homemakers (26%) and then retirees (12%). Again females attend more programs than males (67% to 33%), and 58% of the attendees are between the ages of 20-39.

Reasons for coming also reveal differences by gender, with females coming to the library significantly more often than males to return materials, to bring children, to attend library programs, to do school assignments and attend meetings. Males are significantly more likely than women to come to the library to get information, and to use materials in the library (Appendix A-8).

As noted above, two major reasons for coming to the library were to check out materials and to use materials in the library. When the distribution of occupations for each of these reasons is compared against the overall occupational distribution of respondents, the homemaker group shows a disproportionately low in-house use of materials. Overall, homemakers were 9% of all respondents, but only 3% of those who came to the library to use materials there. In contrast, homemakers dominate such reasons for coming as attending a library program (26%) and bringing a child to the library (34%).

The data indicate that approximately one in five persons cited their primary reason as use of materials in the library. This is almost certainly an underestimate because of the fact that the various reasons for coming are not mutually exclusive. In fact, 63% of the respondents indicated that they used materials in the library.

Among those who indicated that they came intentionally to use materials in the library, 72% were male, and 62% fell in the 20-39 age bracket. The largest proportion were professionals (29%), followed by students (18%), skilled/unskilled workers (13%), and clerical workers (10%). In comparison with the total sample of respondents, major differences are seen in two occupational groups--the homemakers who were 9% of the total respondents but only 3% of the individuals who indicated that they were coming to use materials in the library, and the unemployed who were 5% of the total sample but 10% of those coming to use materials in the library.

It is tempting to suggest that unemployment not only gives people unwanted time which leads them to the library but also that the library's informational materials are of more interest to these individuals than are recreational materials.

Summary -- In-house use of library materials represents a substantial amount of library use. The questionnaire data reveal that more than half the patrons (63%) coming to the library actually use materials within it. Generally, the patrons who use materials in the library are not significantly different from the non-user; the distribution of responses by age, level of education and occupation do not differ substantially between users and non-users. Of course, certain groups, most notably students, are heavier users of materials in the library. In terms of those who use the library for more than 30 minutes, it is students, retirees and the unemployed who use materials in greater proportion than their representation among all respondents. The unemployed are particularly notable in that they indicate a very strong interest in using materials in the library. When gender is considered, males are significantly more likely to use materials in the library than are females.

Section 2. What Types of Materials Are Used in the Library, and by Whom?

The questionnaire data show that 63% of the respondents used materials in the library. Analysis of the types of materials used and the duration of use reveals some interesting patterns (Figure 3-1). Of all items used, the largest group is nonfiction (6921), followed by fiction (5433), magazines (3937), and newspapers (1443); nonfiction use comprises 39% of all items used, and fiction 31%. When duration is considered, short-term use of nonfiction is most numerous (26% of the total), followed by short-term use of fiction (23%) and short-term use of magazines (13%) (Table 3-8). The smallest number of items used involved both short and long-term use of newspapers (4% each).

When users for 30 minutes or more are examined separately, there is a slight decrease in short term use of fiction from 24% to 21% and a slight increase in the long term use of nonfiction (19 to 24%). As might be suspected, individuals who stay in the library longer use more materials; both the mean and median use is greater for those who stay in the library more than 30 minutes. Generally, the pattern of in-house use that emerges is strongest use of the nonfiction collection increasing as duration of stay increases, followed by heavy short-term use of the fiction collection. In fact, although more respondents used nonfiction, the largest mean use was in short-term fiction, 4.3 items per user compared to 3.8 items used of short-term nonfiction. This suggests heavy browsing on the part of fiction users. Magazine use is also considerable. In terms of numbers of users, it is similar to fiction with the exception that magazine users are fairly evenly divided between short and long-term uses (761/596) while the preponderance of fiction users are short-term (941/496).

When type of material is analyzed using just materials consulted for longer periods of time, the same general pattern emerges with nonfiction being the heaviest used (Table 3-9). However, there are changes in proportion among the other categories. The number of fiction items drops eight percentage points from 31% to 23% and the percentage of newspapers and magazines rise 9% combined. The pattern of increased use of magazines and newspapers and decreases in fiction use as length

Fig. 3-1 Number of Materials Used by Type and Duration.

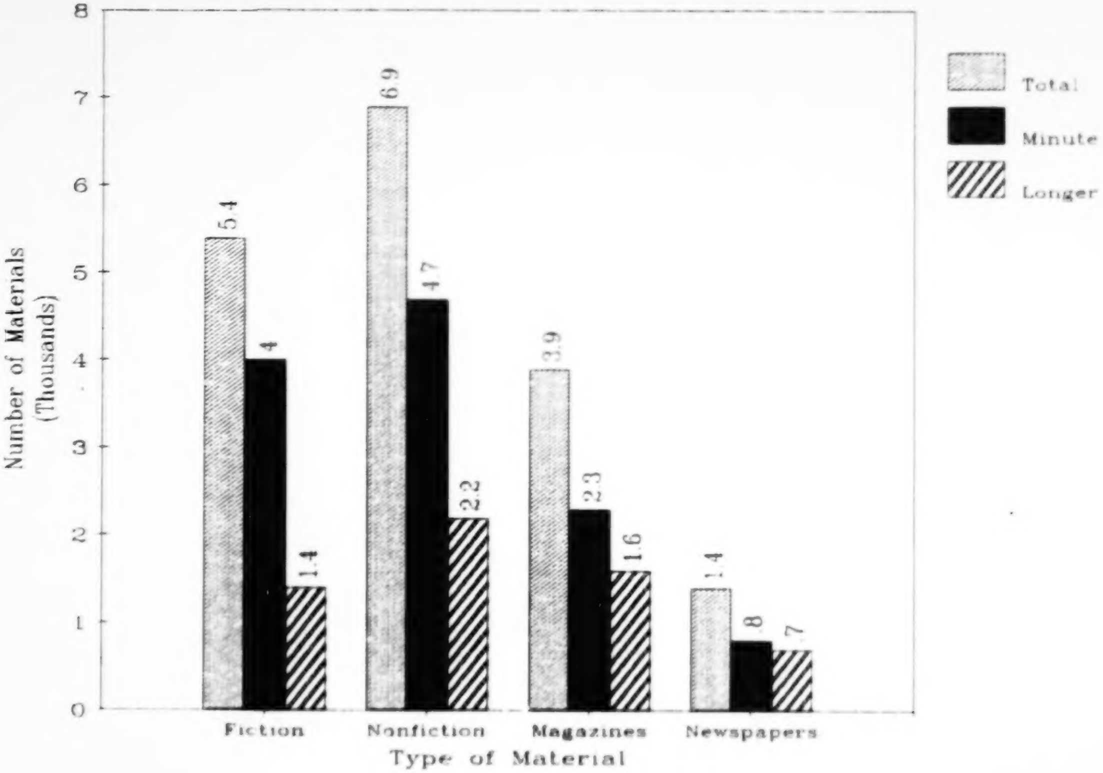


Table 3-8

AVERAGE NUMBER OF ITEMS USED IN-HOUSE, BY TYPE OF MATERIAL AND DURATION

For All Items Used In-House

			Average No. of Items Used Per Patron	
Type and Duration	Number of Items/ % of Total	Number of Users/ % of Total	Mean	Median
Fiction for a minute	4040/23%	941/30%	4.3	3
Fiction for longer	1393/ 8%	496/16%	2.8	2
Nonfiction for a minute	4694/26%	1246/40%	3.8	3
Nonfiction for longer	2227/12%	805/26%	2.8	2
Magazines for a minute	2317/13%	761/25%	3.0	2
Magazines for longer	1620/ 9%	596/19%	2.7	2
Newspapers for a minute	750/ 4%	388/12%	1.9	1
Newspapers for longer	693/ 4%	317/10%	2.2	1
Total	17,734/100%	*3086	5.6	4

30 Minutes or Longer

			Average No. of Items Used Per Patron	
Type and Duration	Number of Items/ % of Total	Number of Items/ % of Total	Mean	Median
Fiction for a minute	2311/20%	498/21%	4.6	3
Fiction for longer	769/ 7%	277/12%	2.8	2
Nonfiction for a minute	2947/25%	701/29%	4.2	3
Nonfiction for longer	1652/14%	562/24%	2.9	2
Magazines for a minute	1646/14%	474/20%	3.5	2
Magazines for longer	1267/11%	459/19%	2.8	2
Newspapers for a minute	520/ 4%	238/10%	2.2	1
Newspapers for longer	509/ 4%	233/10%	2.2	2
Total	11,621/100%	*1758	6.6	5

* Column total is not the sum of items in the column because a patron may use items in more than one category.

of use increases become even more pronounced when only patrons who were in the library for 30 minutes or more are analyzed. The percentage of items used that were fiction drops another 8% to 18% and magazine use rises to 30% of all items used. Similarly, the data suggest that a greater percentage of magazines and newspapers are consulted for long-term use than of any other category. 43% of the magazines and 49% of the newspapers are used long-term, compared to 36% for nonfiction and 25% for fiction. Overall, approximately one in three items used in the library is for long-term use.

TABLE 3-9

NUMBER OF ITEMS USED IN-HOUSE FOR A "LONGER PERIOD OF TIME" BY TYPE OF MATERIAL FOR ALL IN-HOUSE USERS AND FOR USERS IN THE LIBRARY FOR 30 MINUTES OR MORE

	All In-House Users		In the Library for 30 Minutes or More	
Type of Material	Number of Items/% of Total	Number of Items Used for Longer/% of Total/% of Items in Category	Number of Users/% of Total	Number of Items Used for Longer/% of Total/% of Items in Category
Fiction	5433/31%	1393/23%/26%	3080/26%	769/18%/25%
Nonfiction	6921/39%	2227/37%/32%	4599/40%	1652/39%/36%
Magazines	3937/22%	1620/27%/41%	2913/25%	1267/30%/43%
Newspapers	1443/ 8%	693/12%/48%	1029/ 9%	509/12%/49%
Total	17,734/100%	5933/100%/33%	11,621/100%	4197/100%/36%

Some evidence of a pattern of fiction and nonfiction use based on the size of the library is suggested when one looks at the number of items per fiction or nonfiction patron and the duration of use (Appendix A-4). It appears that short-term use is heavier in the larger libraries while long-term use is greater in the smaller libraries. For example, the largest number of short-term uses of fiction per patron was in the Minneapolis system (4.6) followed by Arlington Heights, Iowa City, Dallas, Dauphin County, and Rockingham County. The largest number of long-term uses of fiction per patron was at Rockingham County (4.4), followed by Arlington Heights, Dauphin County, Dallas, Iowa City, and

Minneapolis. Minneapolis also had the largest number of short-term uses of nonfiction per patron (4.0) while Dauphin County had the largest number of long-term uses of nonfiction (3.5). Apparently, long-term users in urban libraries examine fewer items than do long-term users in smaller libraries.

The use of fiction in branches appears to be greater than at the central library. Short-term in-house use of fiction at the Minneapolis central library was 4.2 items per patron compared with 4.9 at Franklin, 5.1 at Northeast, and 5.2 at Washburn Branch. A similar pattern occurs in long-term use of fiction. There is no such pattern in short-term use of nonfiction, and the pattern reverses itself in long-term use of nonfiction--2.9 items per patron in the central library compared to 2.8 at Franklin, 1.7 at Northeast, and 2.5 at Washburn Branch. This may, no doubt, be explained by the greater use of the central library for research purposes. It must be noted, however, that the data for Dallas and its branches showed no particular pattern in the number of items used by type of material, as between the central library and the branches.

Overall, based on the questionnaire returns of adult users of print materials, the average in-house user examined between one and four items; 70% of the materials used were fiction or nonfiction books, 22% were magazines and 8% newspapers.

A question of interest is whether a relationship exists between the sex of readers and the use of materials in-house (Appendix A-7). In some of the libraries in this study, females used significantly greater numbers of materials than did males. Overall, cross-analysis of the type of material used by gender indicates significant differences in the short-term use of fiction, the short-term use of nonfiction, and the long-term use of newspapers.

The short-term use of fiction is related to gender in a complex way. For one thing, a significantly greater number of females than males used fiction in the short-term; women were 51% of all survey respondents but 63% of the short-term users of fiction. (The probability that the differences are due to chance alone is less than 1 in 10,000.) Further analysis was conducted to see if significant differences in the number of males and females using fiction are related to the number of items used. It was found that more females than males are prone to short-term use of fiction in general, and more prone to consult large numbers of fiction for a short time. A discussion of the possible reasons for this is included in the section below.

An analysis of short-term use of nonfiction also reveals significant differences by gender, with more males than females making short-term use of nonfiction; the probability that the differences can be explained by chance alone is one in 1,000. Unlike the fiction data, males account for a majority (51%) of all short-term users of nonfiction. Males also dominate the long-term use of newspapers, accounting for 74% of the respondents who indicated such use.

One can only conclude that females, as browsers or short-term users, consult more materials than do males. Perhaps this is related to the function of females in assisting their children which increases the time spent at the library and the number of materials consulted on a short-term basis. It may also be a reflection of the fact that females may have less control over their time and consequently need to consult more materials quickly on a given visit. Another possibility is that women consult library materials with behavior similar to shopping, practicing more comparative examination before selection. These are only speculations, and the answer awaits further research.

The greatest number of users examined nonfiction material for "just a minute" (1246); this is followed by fiction for just a minute (941), and nonfiction for a longer period of time (805) (see Figure 3-2). Magazine use for both durations (761 and 596) is greater than use of fiction for a longer period (496). Newspaper use of both durations is the lowest (388 and 317). Table 3-10 shows that females dominate in the fiction categories and males in the nonfiction, magazine and newspaper categories; the proportion of males increases from nonfiction to magazines and then to newspapers.

Fig. 3-2. NUMBER OF PERSONS USING MATERIALS IN-HOUSE
BY TYPE AND LENGTH OF USE;
FROM ADULT QUESTIONNAIRE
(All Libraries)

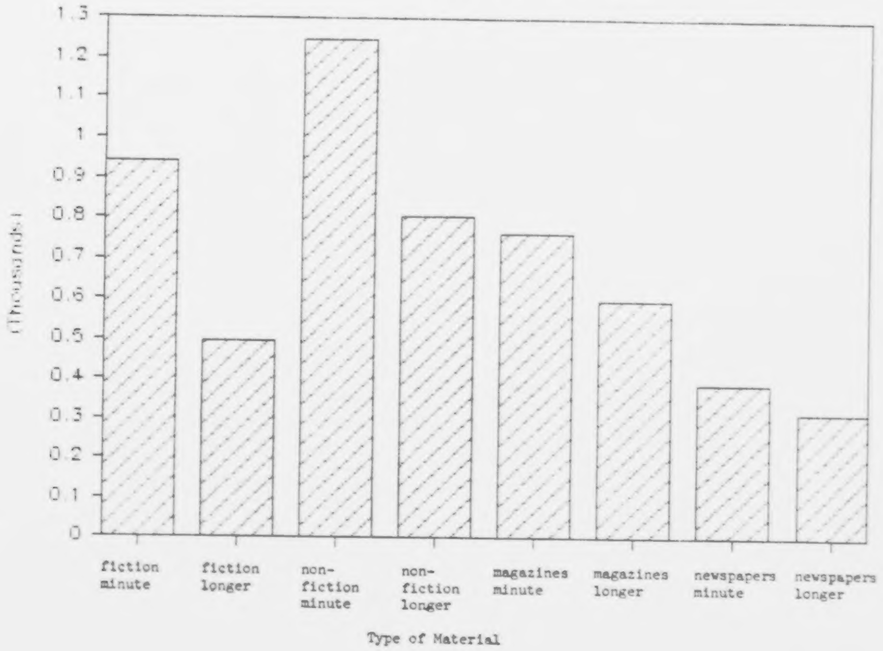


Table 3-10

PERCENT OF USERS BY TYPE OF MATERIAL AND SEX

	Male	Female
Fiction for a minute	37%	63%
Fiction for longer	49%	51%
Nonfiction for a minute	51%	49%
Nonfiction for longer	54%	46%
Magazines for a minute	62%	38%
Magazines for longer	67%	33%
Newspapers for a minute	71%	29%
Newspapers for longer	74%	26%

Section 3. Do Respondents Who Check Out Materials Differ in Age, Education, Occupation or Sex from Those Who Use Materials in the Library?

Cross-analyses were performed on the data for age, sex, occupation and level of education of respondents who checked out materials. The analysis revealed no differences as to age except at Washburn Branch of the Minneapolis system, in which patrons 20-39 years old checked out significantly more materials (at .05 level of significance) than did those who were 40 and over; it appears that the Washburn Branch may cater to a younger group. In addition, no significant difference in the mean number of materials checked out of the library was found when the data were analyzed by the respondents' education. It appears therefore that age and education do not influence the number of materials checked out by patrons.

Similarly, occupation did not seem to affect the number of materials checked out, with one exception--homemakers (see Table 3-11). Homemakers checked out materials in significantly larger numbers than did any other occupation; the Minneapolis system and the Iowa City library exhibit the strongest evidence of this occupational difference. Since homemakers identified as their primary reason for coming to the library "to bring children," it may be that they borrowed books not only for themselves but for their children as well.

Table 3-11

MEAN NUMBER OF ITEMS BORROWED AND USED IN-HOUSE FOR ALL PATRONS, BY OCCUPATION OF PATRON

	Mean Number of Items	
Occupation	Borrowed	Used In-House
Professional	4.8	5.8
Manager	6.0	6.5
Skilled or unskilled worker	3.9	5.3
Clerical or sales worker	3.6	5.5
Student	3.7	5.8
Homemaker	6.0	6.2
Retired	5.5	4.9
Unemployed	3.3	5.0
Other	3.1	6.0
	N = 3492	N = 2931

In addition to analysis by age, education, and occupation, we also sought to determine if the mean numbers of materials checked out by males and females differ significantly. If we extend our analysis of homemakers to the broader area of gender and library behavior, we would predict that females check out more materials than males, at least in part because they not only get books for themselves but also for their children. Since 10% of all responses were from homemakers and 98% of the homemakers were female, it is no surprise that males checked out an average of 3.2 items and females 4.4. Significant differences based on sex were found in all of the libraries except Rockingham County. Of course, there may be other reasons for this difference than what is suggested above.

Similar cross-analyses were applied to the data for in-house use by age, education and occupation. No differences were found for mean usage of materials in the library by persons of different occupation or educational level (Appendix A-8). (Only Iowa City showed a significant difference in in-house use by educational level; individuals with a 12th grade education or less had the highest mean usage of materials in the library and used a significantly greater number of items in-house, especially when compared to individuals with more than two years of college but no degree.) However, in contrast to users who checked out materials only, there were significant differences for in-house users when the data were analyzed by age for all libraries taken together; those 15-19 years of age used an average of 6.5 items in house, those 20-39 years of age 5.6, those 40-59 6.0, and those 60 and over 4.7. Individuals between 15 and 19 and between 40 and 59 exhibited significantly greater in-house use than did the others. The highest mean (6.5 items) represents the youngest group and suggests the predominance of students using materials for assignments; a large number of individuals in this age group came to the library to do school work. Nothing in our data explains why the 40-59 age group should have the second highest average number of items used in-house (6.0).

An attempt was also made to determine if differences could be found by occupation, education or age of long-term users only, that is, individuals who stated that they used one or more materials for "a longer period of time." Analyses of variance indicated that there were significant differences for age only, and that the differences were significant for the age groups 15-19 (mean = 7.3 items) and 60 and over (mean = 5.0). This is consistent with the findings for in-house users as a whole.

The significance of gender differences in in-house use was not as clear. Overall, no differences were found, but Arlington Heights, Minneapolis central library and the Dallas system all exhibited gender differences in regard to in-house use. In some cases the differences are relatively small, as in Minneapolis where females used an average of 6.2 items and males 5.4; however, in Arlington Heights the difference is considerably larger, 5.9 compared to 4.1. In addition, although gender differences among all in-house users were not found, analysis of gender differences among long-term users did produce statistically significant differences (Appendix A-8). Females were found to use more items than males (means = 6.7 and 5.8 respectively). There is, therefore, support for the belief that females use more items in the library than males, particularly among long-term users, but the size of the average difference is small, and not all the statistical tests produced significant results. The reason why females use more items is also unclear. Possibly, the reason is similar to why they check out more materials--because they are examining materials for their children.

Unfortunately, the data collected in this study are unable to answer this question.

Section 4. What is the Ratio of Materials Used in the Library to Materials Checked Out?

The relationship between the number of materials used in the public library to the number of items checked out has been approximated at 0.5 to 1 in previous studies and in which the count of materials on tables was the measure of in-house use. In contrast, our questionnaire returns indicate that an average of 1.2 items were used in-house for each external circulation (see Table 3-12). The ratios for the several libraries range from 0.9 to 1 for Arlington Heights to 1.7 to 1 for Iowa City. In all cases, the ratios are substantially above the ratios based on table counts. Because data were collected in three branches for each urban library, it was also possible to examine the relationship of in-house use ratios between the central and branch libraries. In Minneapolis, the pattern that emerged is clear. The central library had the highest in-house use ratio (1.5 to 1, compared to 1.4, 1.0 and 0.9 to 1 for the branches). This is consistent with the assumption that central libraries' collections serve research and reference purposes to a greater degree than do branch collections. Curiously, the data from Dallas did not support this pattern. Two of the branches had slightly higher in-house use ratios than the central library. Although one might account for this pattern in several ways--heavy use of a branch for school assignments, attractive branch environment, strong reference collections, etc.--it is also necessary to note that methodological difficulties resulting from problems with the microcomputer at the Dallas central library (see p. 125) may also have distorted the results. Because of the methodological problems, and because the Minneapolis data involve significantly larger numbers of items checked out and used in the library, it is safer to assume that the pattern established at Minneapolis has stronger support.

Table 3-12

RATIO OF IN-HOUSE USE TO EXTERNAL CIRCULATION BY LIBRARY

Library	No. of Items Used In-House	No. of Items Checked Out	Ratio to One Item Checked Out
All	17,734	14,252	1.2
Arlington Heights	1,521	1,637	0.9
Dallas system subtotal	(1,891)	(1,681)	(1.1)
Dallas central	452	361	1.2
King Branch	102	76	1.3
Oaklawn Branch	794	546	1.4
Audelia Branch	543	698	0.7
Dauphin County	1,249	1,212	1.0
Iowa City	2,674	1,543	1.7
Minneapolis system subtotal	(9,661)	(7,414)	(1.3)
Minneapolis central	6,589	4,419	1.5
Franklin Branch	814	597	1.4
Northeast Branch	825	811	1.0
Washburn Branch	1,433	1,587	0.9
Rockingham County	738	765	1.0

Size of library system may also be a factor in the size of the in-house use ratio. Smaller libraries like Dauphin County and Rockingham County had ratios of 1.0 to 1. This compared with the larger system ratios for Dallas and Minneapolis of 1.1 and 1.3 respectively. The pattern is also supported by Arlington Heights (0.9 to 1) but not by Iowa City which has the largest ratio (1.7 to 1). It is difficult to account for Iowa City's exceptionally high ratio. As mentioned in regard to the Dallas branches, perhaps an especially strong reference collection useful for information queries or school assignments promotes greater in-house use at Iowa City. Nonetheless, the pattern established seems to be that increasing size results in increased in-house use ratios. However, there are a sufficient number of exceptions in this study to suggest that actual ratios are determined by more than size, and that other variables may significantly affect the size of in-house use. In addition, although these patterns are offered as possibilities, the size of the sample is too small for any generalization concerning the relationship between the size of the ratios and the size of the library. When we tested the data by analysis of variance (ANOVA) to determine if there were statistically significant differences in the ratios of the libraries, we found that the ratios do not vary sufficiently to eliminate the possibility that chance alone caused the differences.

The in-house use ratio of 1.2 to 1 takes into account all items used in the library. A substantial part of this use may be short-term and superficial such as browsing activity. This activity is qualitatively different from use of material for extended periods of time. It is possible that disparities between the table-count measure of in-house use and the measures using the interview and questionnaire occur at least in part from the fact that table counts are measures of long-term use. Patrons engaged in short-term use such as browsing may be more likely to reshelve an item after consultation rather than placing it on a table. To examine the possible effect of short-term use on the in-house use ratio, the number of items used only for "a longer period of time" was compared to the total number of items circulated (Table 3-13). The resulting ratio is .42 to 1, considerably closer to the 0.5 to 1 ratio found for table counts in previous studies. This suggests that table counts are in fact measuring a long-term use of library materials. Is it, however, safe to assume that long-term use is qualitatively a better measure? Using only the long-term measure makes two assumptions: (1) that items used for "just a minute" involve only superficial activity and (2) items consulted "for a longer period of time" involve educational and informational activity. It is, however, quite possible that short-term consultation of an item may provide important educational or informational data; while long-term use of an item may imply that a patron could not find the information in the title consulted. Libraries that choose to make the above assumptions may wish to remain with the ratios provided by table counts; librarians unwilling to accept these assumptions should recognize that table counts are under-representing the in-house use of their library collections.

Table 3-13

RATIO OF ITEMS USED "FOR A LONGER PERIOD OF TIME"
TO EXTERNAL CIRCULATION

Library	No. of Items Used In-House	No. of Items Checked Out	Ratio of Items Used to Items Checked Out
All	5,933	14,252	0.42
Arlington Heights	263	1,637	0.16
Dallas system subtotal	(750)	(1,673)	(0.45)
Dallas central	189	361	0.52
King Branch	70	76	0.92
Oaklawn Branch	308	538	0.57
Audelia Branch	183	698	0.26
Dauphin County	424	1,212	0.35
Iowa City	829	1,543	0.54
Minneapolis system subtotal	(3,173)	(7,414)	(0.43)
Minneapolis central	2,202	4,419	0.50
Franklin Branch	343	597	0.57
Northeast Branch	232	811	0.29
Washburn Branch	396	1,587	0.25
Rockingham County	315	765	0.41

Section 5. What Is the Relationship Between In-House Use of Library Materials and Selected Variables?

In attempting to determine the amount of in-house use in a given library it would be useful if another variable could be found that consistently predicts in-house use, especially, if a simple method of prediction (for example, a fixed ratio), could be discovered. This would limit the need to spend time and money to collect directly data on the use of materials in the library. It would also be particularly helpful if the other variable used to predict in-house use was one about which the library already gathers information. The present study gathered data using five commonly measured variables: number of reference questions asked, visitor count, circulation, FTE of public service staff, and size of acquisitions budget. Not all the libraries participating in the study routinely collected data on all these variables; but there was sufficient data provided to make a general assessment of their predictability when related to in-house use.

A natural assumption might be that external circulation is a good predictor of in-house use. This assumption might be made because circulation is simply another form of patron use of materials. Perhaps there is a consistent relationship between materials used in the library and materials used outside it and this consistency is reflected in a fixed ratio. Unfortunately, although the questionnaires in this study were able to establish an overall ratio of in-house use to external circulation (Section 4 above), the ability to use external circulation as a predictor is very limited. Certainly the ratio for individual libraries varies substantially from the overall ratio (a range of 0.7 to 1.5) suggesting that there is not one ratio to fit all libraries. In terms of the libraries individually, a comparison was made by each library as to the number of materials that the respondents stated that they borrowed and the number of materials used in the library by the respondents (Table 3-14). The correlations between in-house use and external circulation in most of the libraries were weak to moderate and account for less than 10% of the variance in in-house use.

Table 3-14

CORRELATIONS BETWEEN RESPONDENTS' REPORTS (A) OF MATERIAL USED IN-HOUSE AND (B) OF EXTERNAL CIRCULATION, BY LIBRARY

Library	Number of Respondents	Correlation/Level of Significance
All libraries	1,934	.32/.00
Arlington Heights	218	.31/.00
Dallas system subtotal	(185)	(.28/.00)
Dallas central	45	.51/.00
King Branch	--	--
Oaklawn Branch	71	.43/.00
Audelia Branch	69	.12/.16
Dauphin County	141	.27/.00
Iowa City	245	.37/.00
Minneapolis system subtotal	(1,069)	(.32/.00)
Minneapolis central	757	.38/.00
Franklin Branch	54	.10/.23
Northeast Branch	91	.33/.00
Washburn Branch	167	.31/.00
Rockingham County	64	.62/.00

The relationship between the other variables and in-house use can not be so closely analyzed, because the ratios established for the other variables involve comparison of actual and total figures for a given variable on a given day with a sample of in-house use. That is, the number of items reported to be used in-house on a given day was based on the questionnaire sample of respondents and it was impossible to determine what fraction of total in-house use was involved. As a consequence, when developing ratios of in-house use to the selected variables, these ratios are not to be construed as the actual ratios for that day, but are to be used for comparison to ratios calculated in the same way on other data collection days. If the ratios for a selected variable in a given library are similar on each of the data collection days, it may suggest the desirability of collecting data on that variable, for example the number of reference questions asked, over the same time that the questionnaire is being administered.

Unfortunately, the data analysis indicates that none of the variables, including external circulation, produce consistent ratios (Appendix A-6). When the number of materials used in the library on a given day, as determined by the questionnaire, was compared to the number of items circulated, as determined by the actual circulation count, the in-house use to circulation ratios varied widely by month (Appendix A-6). For example, the ratios for Minneapolis for each of the three data collection days were 0.97 to 1; 0.54 to 1 and 0.65 to 1. For Rockingham County they were 0.83 to 1; 1.18 to 1; and 0.40 to 1. Further, the mean ratios for each library varied widely from each other. Ratios for visitor count reflected similar variation, ratios for Minneapolis ranging from .81 to 1.08, and Rockingham County ranging from 0.65 to 2.32. Similar conclusions can be drawn for FTE of public service staff and number of reference questions asked. In each of these cases, the ratios for the three data collection days varied widely as did the mean ratios among libraries. Acquisitions budget as a variable was not helpful as a predictor for this study because only one year of in-house use was measured. If data were collected over several years, it could be compared to annual acquisitions budgets to determine if there was a fixed ratio of in-house use to size of acquisitions budget.

This is not to say that a relationship between the selected variables and in-house use is not present. For example, when correlations were run between in-house use and all selected variables analyzed by library, the resulting correlations are extremely high (Table 3-15). Correlations were also run without regard to library using data from the three libraries that provided the most complete data on all the variables (Dauphin County, Minneapolis, and Rockingham County). These correlations were also very high (Appendix A-12).

Table 3-15

CORRELATIONS OF IN-HOUSE USE AND SELECTED VARIABLES FOR ALL LIBRARIES COMBINED AND BETWEEN LIBRARIES

Independent Variable	COMBINED Correlation/Level of Significance	AMONG Correlation/Level of Significance
Number of reference questions asked	.97/.00	.97/.01
Number of visitors	.98/.00	.99/.00
Circulation	.94/.00	.99/.00
FTE public service staff	.98/.00	.96/.02
Acquisitions budget	---	.98/.01

N = 8 for combined data   N = 4 for correlations between libraries

The data strongly demonstrate that as visitor count, circulation, FTE and acquisitions budget increase, one can predict that in-house use will also increase. Similarly, one can predict that libraries with higher values for these same variables will have greater in-house use than libraries with lower values for these variables. Such a finding is not surprising; it is reasonable to assume that the greater the number of individuals coming into the library, or the greater the number of reference questions asked, the more likely that materials would be used in the library. Conversely, when considering size of acquisitions budget, larger budgets should allow the library to purchase more titles for use and employ more public service staff thus increasing the likelihood of in-house use. One would therefore predict that larger libraries would also have greater in-house use, and this is generally supported by the questionnaire data (Section 4). In attempting to discover which of the variables was the best predictor of in-house use, a step-wise regression was performed; visitor count was found to contribute the most to the variance of in-house use. If libraries wish to use one variable to predict in-house use, it appears that visitor count is the best choice. It must be kept in mind that correlation is not a very strong measure of association; it merely indicates how well (but not how closely) movement in one variable agrees with movement in a second variable. As previously noted, for a given library, the data in this study suggest that it would be difficult to predict the size of in-house use from any of the selected variables because of the variation in the actual ratios for each month. Based on the questionnaire data, it would be advisable to collect in-house use data directly rather than depending on another variable to estimate its size.

Summary -- The questionnaire data revealed that the ratio of library materials used in the library to materials checked out was approximately 1.2 to 1. This finding is at substantial variance with the 0.5 to 1 ratio reported in the library literature using the table count method. As such, it is suggestive of a serious under-representation of the use of materials in the library.

In-house use of the library is considerable both from the perspective of the number of patrons using the library and the number and type of materials used. Approximately 67% of library patrons use materials in the library, and it appears that many of these individuals are using the collection for informational or research purposes. This is supported by the finding that the largest category of materials used and the largest number of users deal with nonfiction materials. In addition, about one-half of the in-house users are in the library for more than 30 minutes. Magazine and fiction use is also substantial, with fiction use most often of a short-term variety suggesting browsing. A pattern of in-house use is also influenced by the size of a library system or whether it is a branch or central library; larger systems tend to have greater in-house use and central libraries have greater in-house use than do branches.

Attempts to use other variables to predict in-house use were not productive. Although there were high correlations between all the variables and in-house use, there was little consistency in the actual in-house use ratios obtained for each variable within a given library. Based on the correlations, if a library wants to use a variable to predict in-house use, visitor count appears to be the best, but the data suggest that in-house use should be measured directly, rather than through other variables.

CHAPTER 4

DATA FROM THE ADULT INTERVIEWS

The description and analysis of adult interview data will proceed in a manner similar to the treatment of the adult questionnaires. Emphasis will be placed on discussing who uses library materials, particularly who uses materials in the library, what type of material is used in the library, how much of each type is used, and whether in-house use can be predicted by other variables such as external circulation, visitor count, number of reference questions or size of public service staff. Although the interviews were done in all six libraries, no branches of the Minneapolis or Dallas library systems were involved.

Section 1. Who Uses Materials in the Library?

A total of 2160 interviews were conducted during the six-month period of study at a rate of one day a month (Appendix B-1). Table 4-1 shows the number of responses by library for all the interviewees and for the in-house users only. In contrast to the questionnaire data, where Minneapolis represented by far the largest proportion of respondents, Arlington Heights had the largest percentage of persons interviewed. Dallas, which depended on a microcomputer to collect questionnaire responses, had relatively few responses due to technical problems with their microcomputer, but had the second largest number of interview responses followed by Minneapolis. The smaller libraries measured by population served contributed the smallest numbers of interviewees.

When examining respondents who indicated that they used materials in the library this pattern is repeated. Out of a total of 2160 respondents, 1027 (48%) indicated that they had used materials while in the library. For individual libraries, the largest percentages of in-house users are found in Dallas (57% of those interviewed), Minneapolis (53%), and Iowa City (49%). Dauphin County and Rockingham County had the lowest percentages of in-house use (40% and 28% respectively). These data, like the questionnaire data, suggest a pattern of larger libraries experiencing greater in-house use. This pattern is further supported by the data on users who were in the library for 30 minutes

Table 4-1

NUMBER OF INTERVIEW RESPONSES BY LIBRARY FOR ALL RESPONDENTS, IN-HOUSE USERS AND NON-IN-HOUSE USERS

		Respondents Using Materials in the Library		
		All	30 Minutes or More	Non-In-House Users
Library	Number of Responses/ % of Total	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category
Arlington Heights	764/35%	341/33%/45%	218/32%/28%	423/37%/55%
Dallas central library	413/19%	236/23%/57%	161/23%/39%	177/16%/43%
Dauphin County	262/12%	106/10%/40%	68/10%/26%	156/14%/60%
Iowa City	231/11%	113/11%/49%	72/10%/31%	118/10%/51%
Minneapolis central library	381/18%	201/20%/53%	146/21%/38%	180/16%/47%
Rockingham County	109/5%	30/3%/28%	24/4%/22%	79/7%/72%
Total	2160/100%	1027/100%/48%	689/100%/32%	1133/100%/52%

or more. One might speculate that the reason for this is the larger reference and information collections available in the large central libraries.

When we consider the time spent in the library by these interviewees, the numbers diminish as the time spent increases (see Table 4-2). All but 6% of these interviewees said that they used the library for less than two hours, with more than half using it for under 30 minutes. This is consistent with the relatively large number of individuals who indicated that they came to the library either to check out books or to return materials. However, a somewhat different pattern emerges when only the individuals who actually used materials in the library are examined. Over half of such respondents spent between one-half to two hours in the library; almost 10% said they spent more than two hours in the library. The pattern of users staying in the library for longer periods is similar to the data from the questionnaire respondents. The pattern in the interview setting is, however, more pronounced. While the percentage of all respondents who used materials for under 30 minutes and for 1/2 to 2 hours is almost identical for the questionnaire and interview (54% and 40% for the questionnaire; 53% and 41% for the interviews), the interviews have a lower percentage of in-house users who were in the library for less than 30 minutes (44% to 29%) and a larger percentage of users in the library for 1/2 to 2 hours (49% to 58%). Such differences might be due to differences in the samples drawn, but despite these variations the overall pattern of longer library use by in-house users is supported.

Several patterns emerge when the interviewees are analyzed by the level of formal education completed (see Table 4-3). As with the questionnaire respondents, a considerable proportion of the interviewees were those with a high school education or less; more than one in five persons fell into this category. Almost one-half of these library patrons possessed a formal education at the bachelor's degree level or above. These data, therefore, confirm the findings obtained from the questionnaires and from many previous studies that public libraries serve a disproportionate number of the better educated individuals.

Table 4-2

DISTRIBUTION OF RESPONSES BY AMOUNT OF TIME SPENT IN THE LIBRARY
FOR ALL RESPONDENTS, IN-HOUSE USERS AND NON-IN-HOUSE USERS

		Respondents Using Materials in the Library		
		All	30 Minutes or More	Non-In-House Users
Time Spent	Number of Responses/ % of Total	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category
Less than 30 minutes	1147/53%	334/33%/29%	---	813/72%/71%
½ to 2 hours	879/41%	592/58%/67%	592/86%/67%	287/25%/33%
More than 2 but less than 4 hours	100/5%	76/7%/76%	76/11%/76%	24/2%/24%
More than 4 hours	27/1%	21/2%/78%	21/3%/78%	6/1%/22%
Total	2153/100%	1023/100%/48%	689/100%/32%	1130/100%/52%

Table 4-3

DISTRIBUTION OF RESPONSES BY LEVEL OF EDUCATION FOR ALL RESPONDENTS, IN-HOUSE USERS AND NON-IN-HOUSE USERS

		Respondents Using Materials in the Library		
		All	30 Minutes or More	Non-In-House Users
Level of Education	Number of Responses/ % of Total	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category
Grades 1-12	444/21%	188/19%/42%	132/20%/30%	256/23%/58%
1-2 years of college	343/16%	152/15%/44%	100/15%/29%	191/17%/56%
2 or more years of college, no degree	295/14%	148/15%/50%	107/16%/36%	147/13%/50%
Bachelor's degree	520/24%	241/24%/46%	150/22%/29%	279/25%/54%
Graduate work	222/10%	113/11%/51%	82/12%/37%	109/10%/49%
Master's or Ph.D.	310/14%	167/16%/54%	104/15%/34%	143/13%/46%
Total	2134/100%	1009/100%/47%	675/100%/32%	1125/100%/53%

Nonetheless, the fact that half of these individuals possess less than a bachelor's degree and often no more than a high school education should reaffirm the public library's commitment to individuals with lower levels of formal education. The distribution by education of those who used materials in the library is very similar to that of all those interviewed; there is a small increase in the percentages of those who used materials in-house as the level of education goes up for all in-house users and for those who were in the library 30 minutes or more.

When the educational levels are analyzed by gender, females are in the majority of those with no more formal education than two years of college, while males dominate those possessing graduate degrees. Among in-house users, females represent a disproportionately large percentage in the lower educational classifications, but are equal in numbers with males of those with bachelor's degrees or above (Appendix B-9).

The occupational pattern of interviewees generally follows that found in the questionnaire data (Table 4-4). The greatest number of respondents are in the professional category, followed next by students. Overall, professionals and students comprise almost one-half of the library patrons who were interviewed, reflecting the propensity of the library to draw educated individuals. In addition, 54% of the interviewees were employed in some capacity. Retired individuals, homemakers, clerical, and skilled and unskilled workers each fall within a range comprising 9%-14% of the total. About the same percentage of individuals indicated that they were unemployed as those who answered the questionnaire. The data collected in the interviews and the data collected on the questionnaires are similar in regard to the distribution of respondents by occupation; apparently the interviewers did not bias the sample by selecting an unrepresentative group.

The distribution by occupation of those who said they used materials in the library is very much like that of all those interviewed; among all in-house users a higher percentage of all students (56%) used materials in-house than of any other group, and the lowest percentage (33%) was of homemakers. Among in-house users in the library for 30 minutes or more, students comprise an even greater percentage of the

Table 4-4

DISTRIBUTION OF RESPONSES BY OCCUPATION FOR ALL RESPONDENTS, IN-HOUSE USERS AND NON-IN-HOUSE USERS

		Respondents Using Materials in the Library		
		All	30 Minutes or More	Non-In-House Users
Occupational Group	Number of Responses/ % of Total	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category
Professional	644/30%	311/31%/48%	206/30%/32%	333/30%/52%
Manager	119/6%	50/5%/42%	29/4%/24%	69/6%/58%
Skilled or unskilled worker	201/9%	105/10%/52%	67/10%/33%	96/8%/48%
Clerical or sales worker	184/9%	87/9%/47%	52/8%/28%	97/9%/53%
Student	362/17%	203/20%/56%	160/24%/44%	159/14%/44%
Homemaker	304/14%	101/10%/33%	59/9%/19%	203/18%/67%
Retired	246/12%	113/11%/46%	74/11%/30%	133/12%/54%
Unemployed	67/3%	37/4%/40%	27/4%/40%	30/3%/45%
Total	2127/100%	1007/100%/47%	674/100%/32%	1120/100%/53%

total than in-house users generally (24% and 20%). Students are clearly a major category of in-house users.

Some occupational groups demonstrate a close relationship with particular reasons for coming to the library (Appendices B-2 and B-3). For example, 38% of the respondents indicated that they were students and also reported that they came to the library primarily to complete a school assignment. Similarly, homemakers exhibit numerous differences from the general sample of interviewees concerning their reasons for coming to the library. Homemakers are three times more likely than any other group to identify children as their reason for coming; homemakers are, conversely, much less likely to say that they came to the library to get information or to use materials in-house. Only 2% of the homemakers indicated they intended to use materials in-house compared to 12% of all the interviewees. As might be expected, 98% of the homemakers were females, and homemakers dominated the group for whom the bringing of children to the library was a main reason for coming.

Interviewees who indicated that they were unemployed were predominantly males (60%) and between the ages of 20 and 39 (69%). In the questionnaire data, the percentage of unemployed respondents who used materials in the library was quite high (71%), compared to other occupational categories; this pattern did not reoccur among the interview respondents (40%); however, heavy in-house use still supported when examining their reasons for coming to the library. These persons used the library primarily to get information from a librarian (30%) or to check out materials (28%). Insofar as the interview data are concerned, the unemployed library patrons rely on the library to a greater extent than do other library users for informational resources, particularly from librarians.

The relationship between gender and occupation shows a pattern consistent with the educational findings. Males dominate the occupational categories of professional, manager, and skilled and unskilled workers, and females the clerical and homemaker groups. When in-house users are examined separately, the pattern is the same except that females are found also to dominate the student category (Appendix B-9).

Some variation from the questionnaire results occurs in regard to the reasons for coming to the library (see Table 4-5). The most common reason for coming to the library (35%), given by the interviewees, was to check out materials; this is also first in the questionnaire data. However, the second most common reason for coming, based on the interviews, was to "get information from a librarian"; this is 17% of the interview responses but only 3% of the questionnaire data.

Apart from this difference, the interview data identified the return of library materials and the use of materials in the library as the third and fourth most popular reasons for coming, similar to the questionnaire results. However, the interview data reveal that a higher percentage of respondents needed to return materials to the library than to use materials in the library, the reverse of the order in the questionnaire data. And the percentage of interviewees indicating intentional in-house use is substantially lower than in the questionnaire responses (10% compared to 20%).

When those who used materials in-house are compared with all interviewees, in regard to their reasons for coming, the percentage of individuals indicating that their purpose was to use materials in the library increases from 10% to 18%, and of individuals who stated that they came to get information from a librarian from 17% to 28%. This suggests that many individuals who use materials in the library come first to speak to a librarian and subsequently use library materials, rather than coming to the library intending to use materials and then talking to a librarian. There is a concomitant drop in the percentage of individuals who indicated that they came to the library either to check out or to return materials.

In considering the individuals who stated that they came to the library to use materials in-house, the fact of non-exclusive categories must be kept in mind. Although among all respondents, only 10% identified in-house use as a primary reason for coming, other reasons (to bring children, to do a school assignment, and to get information from a librarian) have direct implications for in-house use as well. In fact, 47% of all interviewees reported that they used library materials while in the library.

Table 4-5

DISTRIBUTION OF RESPONSES BY REASONS FOR COMING FOR ALL RESPONDENTS, IN-HOUSE USERS AND NON-IN-HOUSE USERS

		Respondents Using Materials in the Library		
		All	30 Minutes or More	Non-In-House Users
Reasons for coming	Number of Responses/ % of Total	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category	Number of Responses/ % of Total / % of Responses in Category
Return materials	299/14%	74/7%/25%	34/5%/11%	225/20%/75%
Bring a child	58/3%	27/3%/47%	20/3%/34%	31/3%/53%
Attend a program	18/1%	6/1%/33%	4/1%/22%	12/1%/67%
Do school work	166/8%	102/10%/61%	88/13%/53%	64/6%/39%
Get information from a librarian	371/17%	282/28%/76%	196/29%/53%	89/8%/24%
Meet someone	19/1%	5/*/26%	4/1%/21%	14/1%/74%
Attend a meeting	13/1%	0/0/0%	0/0/0%	13/1%/100%
Check out materials	748/35%	299/30%/40%	169/25%/23%	449/40%/60%
Use materials in the library	225/10%	180/18%/80%	138/20%/61%	45/4%/20%
Other	222/10%	37/4%/17%	23/3%/10%	185/16%/83%
Total	2139/100%	1012/100%/47%	676/100%/32%	1127/100%/53%

* less than 1%

Of those who indicated that they came to use materials in the library, 26% were professionals, but professionals were 30% of all interviewees (Appendix B-3). Those who stated that they came to use materials in the library, in excess of their overall percentage as interviewees, are skilled or unskilled workers, clerical workers, and (as mentioned above) the unemployed. In fact, one in five unemployed respondents said that they came to the library to use materials in-house.

Closely associated with individuals who indicated that they came to the library to use materials are those who said they were coming to get information from a librarian. This group is predominantly male (59%), between the ages of 20 and 39 (62%), and professionals (38%). Professionals are three times more numerous than the next largest occupational group, viz., skilled and unskilled workers (13%). As noted above, although unemployed individuals represent a small fraction of the total number of interviewees, almost one in three of them came to the library to get information from a librarian; approximately one in four managers came for this reason.

The percentage of individuals who came to do school assignments is similar in both the interview and the questionnaire data, which is not surprising since the percentage of respondents indicating that they were students did not vary greatly. A majority of the students (62%) were between the ages of 20 and 39, and 35% were 15 to 19.

Reasons for coming also reveal differences by gender, with females coming to the library significantly more often to return or check out materials, to bring children, and to attend meetings, while males came more often to get information from a librarian and to use materials in the library. (All the libraries except Iowa City revealed significant differences in reasons for coming by gender). When in-house users are examined separately, the pattern is similar, except that females represent a disproportionately large number of individuals who indicated that they were doing school assignments (Appendix B-9).

Section 2. What Types of Materials Are Used In the Library and By Whom?

The interview data show that 47% of the adult patrons used materials while in the library. The distribution of items used in-house by type follows a similar but not identical pattern to that found in the questionnaire data. By type of material, the nonfiction items were the largest number used (2336), followed by magazines (754), fiction (676), and newspapers (297) (see Figure 4-1). When duration is analyzed, short-term use of nonfiction was reported most often (as in the questionnaires); however, the next largest number of items used was long-term use of nonfiction, in contrast to the questionnaire responses which indicated that short-term use of fiction was the second largest. The domination of nonfiction use among the interviewees is considerable--58% of all items used compared with only 17% for fiction. This contrasts with the questionnaires where the percentage of items used for nonfiction and fiction are much closer (38% and 31% respectively). When we compare the mean numbers of items used per person, we find that short-term use of nonfiction is greatest with more than five items per patron, followed by short-term use of fiction, long-term use of nonfiction, and short-term use of magazines (Table 4-6). For both the questionnaires and the interviews, the highest average number of items per user is found in the short-term use of nonfiction and fiction. In addition, for any given type of material, the mean number of items for short-term use is always greater than the mean number of items for long-term use.

When the data are examined by the number of users, nonfiction is the largest (504), followed by magazines (254) and by fiction (170) (Figure 4-2). This is somewhat different from the questionnaires which identified nonfiction as the largest category of users followed by fiction users, and then magazine users. The importance of this difference is marginal; the numbers of fiction and magazine users are actually quite close in the questionnaire data (1437 and 1357 respectively) suggesting that chance alone accounted for the differences.

When users for 30 minutes or more are examined separately, there are only minor differences. Generally, there were small drops in the

Fig. 4-1 Number of Materials Used by Type and Duration

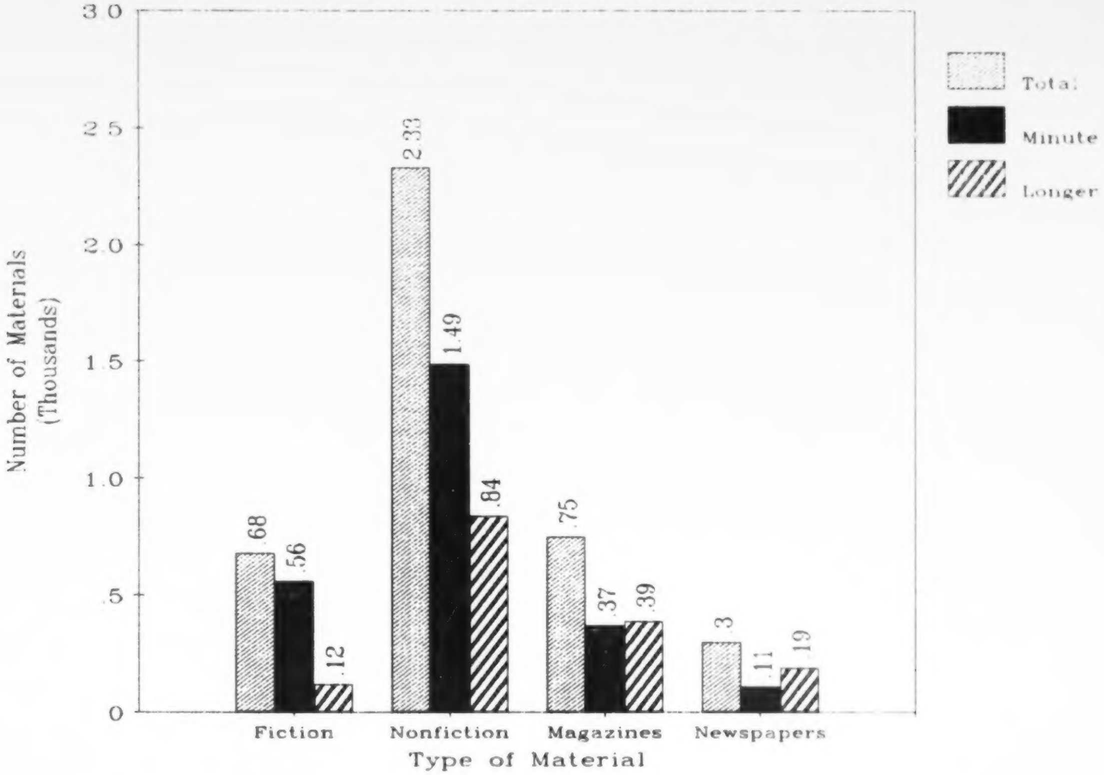


Table 4-6

AVERAGE NUMBER OF ITEMS USED IN-HOUSE, BY TYPE OF MATERIAL AND DURATION

For All Items Used In-House

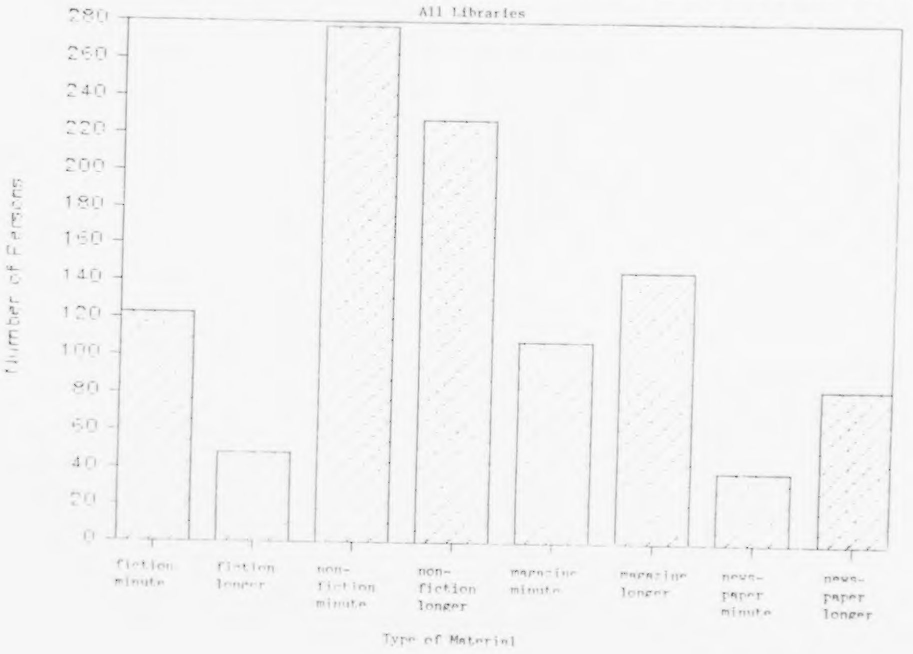
Type and Duration	Number of Items/ % of Total	Number of Users/ % of Total	Average No. of Items Used Per Patron	
			Mean	Median
Fiction for a minute	557/14%	122/12%	4.6	3
Fiction for longer	119/ 3%	48/ 4%	2.5	2
Nonfiction for a minute	1487/37%	277/26%	5.4	3
Nonfiction for longer	845/21%	227/22%	3.7	3
Magazines for a minute	366/ 9%	108/10%	3.4	2
Magazines for longer	388/10%	146/14%	2.7	2
Newspapers for a minute	106/ 3%	39/ 4%	2.7	1
Newspapers for longer	191/ 5%	84/ 8%	2.3	1
Total	4059/100%	652*/100%	6.2	4

30 Minutes or Longer

Type and Duration	Number of Items/ % of Total	Number of Items/ % of Total	Average No. of Items Used Per Patron	
			Mean	Median
Fiction for a minute	344/11%	76/10%	4.5	3
Fiction for longer	69/ 2%	34/ 4%	2.0	1
Nonfiction for a minute	1230/38%	190/24%	6.5	4
Nonfiction for longer	711/22%	172/22%	4.1	3
Magazines for a minute	302/ 9%	80/10%	3.8	2
Magazines for longer	298/ 9%	122/16%	2.4	2
Newspapers for a minute	94/ 3%	29/ 4%	3.2	1
Newspapers for longer	175/ 5%	72/ 9%	2.4	1.5
Total	3223/100%	458*/100%	7.0	4

* Column total is not the sum of items in the column because a patron may use items in more than one category.

FIGURE 4-7. NUMBER OF INTERVIEWEES IN ALL LIBRARIES USING MATERIAL IN-HOUSE BY TIME AND LENGTH OF USE



percentage of users examining materials for the short-term and concommitantly small increases in long-term uses. This pattern is similar to that found in the questionnaires. Also, consistent with the questionnaire data, individuals who stay in the library longer use more materials; those who stayed in the library for 30 minutes or less used a mean of 6.2 items; those who stayed for more than 30 minutes used 7.0.

Although the interview and questionnaire data reveal similar patterns one difference does emerge. In the questionnaire data, the largest mean use was among short-term nonfiction items (4.3): for the interviews the mean fiction use is quite close (4.6 items), but the heaviest use is among short-term nonfiction items (5.4). This pattern, although different, is consistent with the overall view that heaviest in-house use in a library consists of browsing of fiction and brief informational queries on the part of patrons. The data are inconclusive as to which category exhibits the greatest mean use, but it is conclusive in that the greatest number of items used and greatest number of users are of short-term nonfiction (Appendix B-4).

When type of material is analyzed using just materials consulted for longer periods of time, the same general pattern emerges with nonfiction being the heaviest used (Table 4-7). However, there are changes in proportion among the other categories. As in the questionnaires the number of fiction items as a percentage of all items drops substantially (9 percentage points) from 17% to 8% and the percentage of newspapers and magazines rise 11% combined. Also like the questionnaire data, the pattern of increased use of magazines and newspapers and decreases in fiction use becomes even more pronounced when only patrons who were in the library for 30 minutes or more are analyzed. The percentage of items used that were fiction drops to 5% of total number of items used; newspaper use rises to 14%, twice the percentage of in-house use for newspapers overall. Similarly, the data support the questionnaire findings that a greater percentage of magazines and newspapers are consulted for long-term use than any other category. 50% of the magazines and 65% of the newspapers are used long-term, compared to 37% for nonfiction and 17% for fiction. It is clear that fiction use declines sharply as long-term use is considered, and use of magazines and newspapers increases.

Generally, approximately one-third of all in-house use is long-term. This is consistent with the data from the questionnaires.

Table 4-7

NUMBER OF ITEMS USED IN-HOUSE FOR A "LONGER PERIOD OF TIME" BY TYPE OF MATERIAL FOR ALL IN-HOUSE USERS AND FOR THOSE STAYING 30 MINUTES OR MORE

	All In-House Users		30 Minutes or More	
Type of Material	Number of Users/% of Total	Number of Long-Term Users/% of Total/% of Items in Category	Number of Users/% of Total	Number of Long-Term Users/% of Total/% of Items in Category
Fiction	676/17%	119/ 8%/18%	413/13%	69/ 5%/17%
Nonfiction	2332/57%	845/55%/36%	1941/60%	711/57%/37%
Magazines	754/19%	388/25%/51%	600/19%	298/24%/50%
Newspapers	297/ 7%	191/12%/64%	269/ 8%	175/14%/65%
Total	4059/100%	1543/100%/38%	3223/100%	1253/100%/39%

Section 3. Do Respondents Who Check Out Materials Differ in Age, Education, Occupation or Sex from Those Who Use Materials in the Library?

Cross-analyses were performed on the data for interviewees who borrowed materials and those who used them in-house, by age, sex, occupation and education. Significant differences were found for two of the categories: occupation and sex (Appendices B-10 and B-11). The results of the interviews are similar to those of the questionnaires on this point. Of the several occupational groups, only homemakers exhibit a (statistically significant) higher mean number of items borrowed than other occupations (Table 4-8). It may be that homemakers come to the library not only for themselves but for members of their family and that this accounts for the high average number of books taken out.

Table 4-8

MEAN NUMBER OF ITEMS BORROWED AND USED IN-HOUSE, BY OCCUPATION OF PATRON

Occupation	Number of Items Borrowed	Number of Items Used In-House
Professional	4.0	7.2
Manager	2.9	6.1
Skilled, semi-skilled, or unskilled worker	3.9	5.6
Clerical or sales worker	3.3	6.8
Student	3.5	6.3
Homemaker	5.8	5.8
Retired	3.6	4.7
Unemployed	2.4	4.8

Differences are also found in the number of materials checked out by gender of borrowers. Females checked out an average of 4.6 items while males took only 3.1, and the difference is more than chance alone can explain. This again suggests the expanded role females may play in gathering materials not only for themselves but also for other members of their families. The finding of gender differences is confirmed in most of the libraries. Arlington Heights, Dauphin County, Iowa City and Minneapolis all supported this finding; only Dallas and Rockingham County failed to show gender differences in the borrowing of library materials.

In terms of in-house use, gender differences were found overall. For all the libraries combined, females were found to use an average of 6.6 items in the library, males 4.9 (Appendix B-11). Dallas exhibited strong differences by gender. In Dallas, females used an average of 7.7 items in the library while males used 5.4. No differences in in-house use were found when education, age, or occupation was considered (Appendix B-10). When long-term users, those who indicated that they used at least one item "for a longer period of time," are analyzed separately, similar results are found. Females use significantly larger numbers of materials in the library than males (7.9 items compared to 5.7 items). This difference is somewhat larger than that found in the questionnaire data (a difference of 0.9 items), and supports the notion that females may have larger in-house use because they are using materials for their children as well as themselves. No differences in in-house use were found on the basis of level of education, age and occupation for longer-term users (Appendix B-10).

No gender differences could be detected in the number of materials used by type and duration. This is in marked contrast with the questionnaire findings that showed sex differences for short-term use of fiction and nonfiction, and long-term use of newspapers. However, gender differences did arise in the interviews when type of materials was examined by number of users (Appendix B-7). A disproportionately large number of males were found to use nonfiction, magazines and newspapers in the library while a larger number of females used fiction. This suggests greater emphasis on informational uses of the library for males and recreational uses for females (Table 4-9).

Table 4-9

NUMBER OF MALES AND FEMALES USING OR NOT USING EACH MAIN TYPE OF MATERIAL

	Number/% of Total	
	Males	Females
Did not use fiction	947/91%	949/86%
Used fiction	94/ 9%	154/14%
Did not use nonfiction	672/65%	813/74%
Used nonfiction	369/35%	290/26%
Did not use magazines	838/80%	983/89%
Used magazines	203/20%	120/11%
Did not use newspapers	890/85%	1044/95%
Used newspapers	151/15%	59/ 5%

Summary -- The general pattern found in the questionnaires was again found in the interviews. The largest number of items consulted were nonfiction and the largest number of readers used nonfiction. When duration of use is also considered, heaviest use is found in the short-term use of the fiction collection suggesting that brief informational inquiries and browsing are major functions of in-house use. As in the questionnaires, the average in-house user looked at more than 6 items with males being more likely to use nonfiction and females fiction.

Section 4. What Is the Ratio of Materials Used In the Library to Materials Checked Out?

The ratio of in-house use to external circulation from the interview data is similar to that found in the questionnaire returns (Table 4-10). The ratio of in-house use to external circulation is substantially above 0.5 to 1, the average reported by public libraries using the count of materials found on tables as the measurement technique. Only Rockingham County has a ratio below 0.5 to 1, and substantially below the one derived from Rockingham's questionnaires (0.4 compared to 1.0). With that one exception, however, the ratios are above 0.5 to 1 with some being two to three times larger. This supports the suspicion that public libraries are underepresenting their in-house use by counting only books left on tables.

Table 4-10

RATIO OF IN-HOUSE USE TO EXTERNAL CIRCULATION BY LIBRARY

Library	No. of Items Used In-House	No. of Items Checked Out	Ratio to One Item Checked Out	Ratio to One Item Checked Out Questionnaire
All	4,166	4,242	1.0	1.0
Arlington Heights	1,243	1,482	.8	.9
Dallas central	967	661	1.5	1.0
Dauphin County	470	628	.7	.8
Iowa City	503	427	1.2	1.7
Minneapolis central	855	734	1.2	1.3
Rockingham County	128	310	.4	1.0

It appears that the interview and questionnaire techniques provided similar data on the ratio of in-house use to external circulation. The interviews produced an overall ratio of 1.0 to 1 compared to 1.2 to 1 for the questionnaires. In addition, when individual ratios by library were compared, most of the libraries had similar ratios for both data collection techniques. Exceptions to this were Iowa City, whose ratio dropped from 1.7 to 1 in the questionnaire to 1.2 to 1 in the interview, and Dallas central library that rose from 1.1 to 1 in the questionnaire to 1.5 to 1 in the interview. In both cases, however, the ratios were well above the 0.5 to 1 ratios that are often obtained from table counts.

When size of library is taken into account, it appears that the larger libraries have the larger in-house use ratios: Dallas having the largest ratio, followed by Minneapolis and Iowa City. The smallest ratios came from Dauphin County and Rockingham County. This pattern is similar to that obtained in the questionnaires.

The in-house use ratio was also studied separately for individuals using materials for a "longer period of time" (Table 4-11). This was done with the assumption that there is a qualitatively different type of use occurring when materials are used for longer periods, use that implies reference or research purposes, rather than for browsing. In this regard, the ratio is much lower, 0.36 to 1. This is slightly lower than the questionnaire ratio of 0.42 to 1. In either case, the in-house use ratio is not unlike that found in table counts. This suggests the likelihood that works consulted for only short periods are reshelved producing underrepresentation of in-house use. Qualitatively, it also supports previous findings that much in-house use consists of brief consultation with library materials possibly through either browsing or quick information queries.

Table 4-11

RATIO OF ITEMS USED IN-HOUSE FOR A LONGER PERIOD OF TIME TO EXTERNAL CIRCULATION

Library	No. of Items Used In-House	No. of Items Checked Out	Ratio of Items Used to Items Checked Out
All	1,543	4,242	0.36
Arlington Heights	560	1,482	0.38
Dallas system	286	661	0.43
Dauphin County	158	628	0.25
Iowa City	168	427	0.39
Minneapolis system	276	734	0.38
Rockingham County	95	310	0.31

Section 5. What Is the Relationship Between In-House Use of Library Materials and Selected Variables?

The possibility that in-house use could be predicted by other selected variables was studied in the same manner as with the questionnaire data. The variables were number of refererence questions asked, visitor count, external circulation, FTE of public service staff, and size of acquisitions budget.

In regard to external circulation, the results were similar to the questionnaire data (Table 4-12). The correlation between in-house use and external circulation is very weak in most instances, and moderate at Dallas Central and Iowa City. The ability to predict in-house use from external circulation is, therefore, generally poor, accounting for approximately 5% of the variance in in-house use. The difficulty of using external circulation as a predictor was further supported when the number of materials used in the library on each of the interview days was compared to the actual number of items circulated on those days (Appendix B-6). The results were similar to the questionnaire data; the in-house use to circulation ratios for each interview day varied widely within each library suggesting that there is little ability to predict in-house use based on external circulation. Similar conclusions can be drawn for FTE of public service staff, number of reference questions asked and visitor count. As in the questionnaires, annual acquisitions budget as a variable was not helpful in this study as a predictor for a given library because data were collected for only one year.

Table 4-12

CORRELATIONS BETWEEN RESPONDENTS' REPORTS (A) OF MATERIALS USED AND (B) OF EXTERNAL CIRCULATION, BY LIBRARY

Library	Correlation
All libraries	.23
Arlington Heights	.00
Dallas central	.58
Dauphin County	.22
Iowa City	.38
Minneapolis central	.08
Rockingham County	.02

Although the selected variables did not prove useful in predicting in-house use for a particular library, it was clear that these variables are highly correlated with in-house use. Correlations with in-house use were strong for all variables: circulation, .93; FTE of public service staff, .82; visitor count, .92 and acquisitions budget, .85. Similarly, correlations for the same variables are moderate to strong when the data are combined without regard to library. Combining the libraries that reported data on all variables (Rockingham County, Dauphin County, and Minneapolis), the correlation of in-house use with visitor count is .61, with number of reference questions asked .61, circulation .57 and with number of FTE of public service staff .58 (Appendix B-12).

The data strongly suggest that as visitor count, circulation, FTE of public service staff, number of reference questions asked and acquisitions budget increase, one can predict that in-house use will also increase. Libraries with greater values for these variables can also be predicted to have higher values for the number of materials used in-house. This finding is consistent with that from the questionnaire data. As in the questionnaire analysis, an attempt was made to determine if any of the selected variables proved to be a superior predictor of in-house use but a step-wise regression did not identify a particular variable which had a strong predictive value.

Similar to the findings of the questionnaire data, the data in the interviews suggest that it would be difficult to use any of the selected variables as a means of predicting the actual amount of in-house use within a given library. Until a predictive variable is identified, direct collection of in-house data appears to be the preferred course. Which method of collection is best will be discussed in Chapter 6.

Summary -- The data gathered from the interviews tend to support the findings from the questionnaire. Most notably, the ratio of in-house use to external circulation was similar to that of the questionnaire data, 1.0 to 1 compared to 1.2 to 1. This again suggests that the traditional table count method underrepresents the number of items used in the library. Generally, the pattern proposed in the questionnaire data, that size of library affected the in-house ratio, was supported (with the exception of Iowa City); as library size increases, the in-house use ratio also increases.

The patron profile is also similar to that obtained with the questionnaires. A disproportionate number of in-house users fall into professional categories and have higher levels of formal education. The predominant in-house use of materials was of nonfiction. The average in-house user handled more than 6 items per visit.

Attempts to use other variables to predict in-house use was not productive. Although there were high correlations between all selected variables and in-house use, there was little consistency in the actual in-house use ratios obtained for each variable within a given library. The interview data suggest that direct measure of in-house use is the best approach.

CHAPTER 5

DATA FROM THE COUNT OF MATERIALS FOUND ON TABLES, FROM UNOBTRUSIVE OBSERVATION, FROM THE CHILDREN'S QUESTIONNAIRES AND INTERVIEWS, AND FROM THE ILLINOIS PUBLIC LIBRARY COOPERATIVE STUDY

Section 1. Table Count Data

On each of the six survey days, data were gathered on the number of books and other materials found on library surfaces, such as counters and tables. Materials were considered "used" if they had to be returned to their original location. The primary purposes of this type of data collection were to determine (1) the types of materials used in the library, and (2) the ratio of materials used in the library on that day to the number of items circulated externally. This ratio could then be compared to the ratios calculated from the data obtained from the interviews and questionnaires. It should be noted that the method of calculating in-house use ratios for table counts is different from the methods used in the questionnaires and interviews. The latter ratios were obtained by asking the respondents how many items they checked out or used in the library. The table count ratios were obtained by counting the number of materials found on tables and other surfaces and comparing it to the actual circulation on the day the counting took place. To this extent, the ratios are two different measures of the same phenomenon--in-house use.

In this procedure, the data collectors were able to count separately adult and juvenile materials, nonfiction circulating books, fiction books, reference books, newspapers, and magazines, as well as phonodiscs, audio cassettes, filmstrips, video formats, microfilm and computer software. The Dallas Public Library did not participate directly in this part of the study, since it had previously conducted several counts of items left on tables, and made available for this study the data from its last such count.

Analysis of the Use of Adult Materials -- Although the breakdown by type of material was somewhat different than that used in the questionnaires and interviews (Appendix C-1), the printed material used in the library (based on the count of items left on tables and counters) did not vary substantially from the data collected by interviews and questionnaires (Table 5-1). The heaviest use was of reference materials, followed by nonfiction books, magazines, newspapers, and fiction. However, reference materials were not the largest category in Iowa City, Dauphin County, or Arlington Heights. In Iowa City and Dauphin County, the number of reference books found on tables was less than that of nonfiction or magazines. In Arlington Heights, magazines, nonfiction and reference books were all used in similar amounts, and the greatest in-house use was of magazines.

Table 5-1

NUMBER OF ADULT PRINTED MATERIALS USED IN THE LIBRARY BY TYPE

Type of Material	No. of Items/ % of Total	Items with Dots	
		Number/ % of Total	% of All Items Used
Nonfiction books	10,428/27%	679/14%	7%
Fiction books	2,428/ 6%	92/ 2%	4%
Reference books	11,676/31%	2,314/48%	20%
Magazines	8,377/22%	956/20%	11%
Newspapers	2,687/ 7%	466/10%	17%
Pamphlets	1,426/ 4%	263/ 5%	18%
Other print materials	1,122/ 3%	78/ 2%	7%
Total	38,144/100%	4,848/100%	13%

Since reference books are generally nonfiction, more than 58% of the in-house use of print involved nonfiction materials. Similarly it is not unreasonable to assume that a substantial part of newspaper and magazine use is informational. In fact, only 6% of the in-house use by these adults involved fiction books, as measured by this method. This is quite different from the data gathered by interviews and questionnaires in which fiction comprises 17% and 31% respectively. This may reflect the use of fiction for browsing purposes where there is increased likelihood that the item is reshelved rather than placed on a table where it would have been counted. Nonetheless, data from the count of materials on tables supports the general findings that fiction use by adults is substantially smaller than of non-fiction and informational materials in general.

An attempt was made to measure the repeat nature of in-house use of adult materials, by placing dots on all items found on tables on the first five counting days, and subsequently counting the number with dots found on tables on the sixth day (see Chapter 1, Section 2, above on methods used in the study). The results display a clear pattern. Repeat use of an item appears to be low. Overall, slightly more than one in eight items of those found on tables on the sixth day had been used on one or more of the previous five counting days. Reference items were reused most often, with one in five items used at least twice in the six days, followed closely by pamphlets (including pamphlet files), and newspapers. Approximately one in ten magazines had been used previously. However, it must be kept in mind that the limited time in which the method was used severely restricted the chance that an item would be reused; the possibility that an item used on one survey day in one month would be reused on one of the other five survey days was relatively small. In addition, the number of items reused was counted only on the sixth survey day. This ignored the number of items reused during the first five days, and consequently reduced the size of the ratio. Strictly speaking, the principle that 20% of the library collection gets 80% of the use was not supported by the results from this technique, but there were some limitations to the method used, and the 80/20 rule cannot be rejected on the basis of this test.

Nonprint materials comprised approximately 5% of all items used by adults in the library; and of all nonprint materials, by far the largest proportion of use was of microfilm (58%), followed by phonodiscs which were almost one-third of all nonprint items counted (Table 5-2). The reuse of nonprint material, as measured by the count of dots on materials, involved one in ten items--almost the same ratio as with print items, and with microfilm and phonodiscs reused the most.

Table 5-2

NUMBER OF ADULT NONPRINT MATERIALS USED IN THE LIBRARY BY TYPE

Type of Material	No. of Items/ % of Total	Items with Dots: Number/ % of Total	Items with Dots: % of All Items Used
Phonodiscs	605/30%	56/27%	9%
Audio cassettes and 8-track tapes	94/ 5%	0	0
Films and filmstrips	5/*	0	0
Video formats	8/*	1/*	12%
Microfilm	1167/58%	126/62%	11%
Computer software	40/ 2%	0	0
Other	76/ 4%	21/10%	28%
Total	1995/100%	204/100%	10%

* less than 0.5%

Analysis of In-House Use Ratios -- The ratio of the number of all materials used by adults in the library to the actual external circulation is 0.66 to 1 (Table 5-3). This ratio does not include Dallas because it did not participate directly in the table counts. However, Dallas did provide data based on its own table counts over a five-year period from 1980-81 to 1984-85. The Dallas data were based on materials left out of place on a table or a bin, or returned to a desk for a sample week in each of the five years. The five-year average in-house use ratio is 0.7 to 1, very close to the overall ratio obtained in this study. Examination of the data indicates that the in-house ratio for all libraries combined is affected significantly by the higher ratio of Minneapolis; when the ratios of the five libraries that participated directly in the table counts are averaged (giving equal weight to each ratio), the average is 0.5 to 1. This supports previous studies establishing this ratio in public libraries using the table method count. It is also clear that, without exception, in-house use ratios derived from the table count method are smaller than those obtained from the questionnaires or interviews. For all libraries combined the 0.66 to 1 ratio obtained from the table counts is nearly one-half of the ratio obtained from the questionnaires and two-thirds of the interview ratio. In some cases, such as Dauphin County, the ratio is only one-eighth of the questionnaire and one-seventh of the interview ratio. These data suggest that the method of data collection affects the magnitude of the in-house use ratio. If deficiencies in the table count method are substantial, it may result in serious underepresentation of in-house use. Discussion of the methodological deficiencies of the table count will be found in Chapter 6.

Table 5-3

COUNT OF MATERIALS FOUND ON TABLES, AND RATIO OF IN-HOUSE USE TO CIRCULATION BY THREE DIFFERENT METHODS

Library	Material Found on Tables/External Circulation	Ratio to 1	Ratios from Questionnaires/ Interviews
All libraries (except Dallas)	40,800/62,004	0.66	1.2/1.0
Arlington Heights	7,248/20,446	0.3	0.9/0.8
Dauphin County	688/ 5,288	0.1	0.8/0.7
Iowa City	5,574/ 9,167	0.6	1.7/1.2
Minneapolis system	26,285/29,510	0.9	1.2/1.2
Rockingham County	1,005/ 2,185	0.5	0.8/0.4
Dallas system	2,764,474/3,891,003*	0.7	1.0/1.5

* annualized average over a 5-year period

Analysis of the Use of Children's Materials -- The use of print materials in the library by children is generally similar to that by adults, particularly in regard to substantial use of nonfiction (Table 5-4). One main difference is that children used almost four times more fiction and this does not include the books identified as easy or picture books. This can perhaps be explained by the fact that children's stories are more easily read in the library than are adult novels. Another variation occurs in the use of reference materials; adults used such materials in far greater numbers than did children, maybe because librarians and parents are more likely to use the materials for the child than for the child to use them himself/herself. Repeat usage of print materials is smaller than adult usage comprising only 5% of print items used compared to 13% for adults. Reference books, however, remain the largest category of reused items.

Table 5-4

NUMBER OF CHILDREN'S PRINTED MATERIALS USED IN THE LIBRARY BY TYPE

		Items with Dots	
Type of Material	No. of Items/ % of Total	Number/ % of Total	% of All Items Used
Nonfiction	2211/30%	80/24%	4%
Fiction	1698/23%	76/22%	4%
Reference books	291/ 4%	29/ 9%	10%
Easy and picture books	2325/31%	104/31%	4%
Magazines	307/ 4%	14/ 4%	5%
Pamphlet and vertical file materials	64/ 1%	6/ 2%	9%
Other print materials	495/ 7%	30/ 9%	6%
Total	7391/100%	339/100%	5%

Use of nonprint items in the library by children comprises a larger proportion of total use than adults' use of such items, but it is still small (12%). Comparing the use by children of nonprint materials with that by adults is complicated by the difference in types of materials recorded. The largest use for adults was of microfilms and phonodiscs; for children, it is toys, games and puppets (Table 5-5). Of the more conventional library materials, phonodiscs were next most frequently used. If the toys, games and puppets are removed from the data, phonodiscs represent 39%, 16 and 8mm film and filmstrips 26%, and audio cassettes and tapes 25% of the in-house uses. Repeat usage of audiovisuals for children follows a pattern opposite that of adults. While repeat usage for adults is greater for print than nonprint, children have greater repeat use of audiovisuals. Approximately one in seven items were used at least twice on the six counting days. However, this repeat usage seems to come in the category of non-traditional library materials, i.e., toys, games and puppets. When this category is eliminated, the repeat usage drops to approximately 7%, lower than adult repeat usage of audio-visual materials.

Table 5-5

NUMBER AND TYPES OF NONPRINT MATERIALS USED IN THE LIBRARY BY CHILDREN

		Items with Dots	
Type of Material	No. of Items/ % of Total	Number/ % of Total	% of All Items Used
Phonodiscs	212/20%	15/ 9%	7%
Audio cassettes and 8-track tapes	133/13%	11/ 7%	8%
Films and filmstrips	139/13%	3/ 2%	2%
Video formats	19/ 2%	0	0
Microfilm	7/*	3/ 2%	43%
Computer software	21/ 2%	4/ 2%	19%
Toys, games and puppets	498/48%	126/77%	25%
Other	8/ 1%	1/ 1%	12%
Total	1037/100%	163/100%	16%

* less than 0.5%

Summary -- The data from table counts support the questionnaire and interview data in regard to the heavy emphasis on in-house use of nonfiction materials. In fact, fiction use comprises a considerably smaller percentage of the total number of items used with the table count method. A possible reason for this is the probability that short-term users of fiction (e.g., browsers) reshelved their materials after inspection rather than placing the items on a table.

The table counts, unlike the interviews and questionnaires, included data on audiovisual materials. Print materials dominate in-house use for adults and children comprising 95% of the adult in-house use and 88% of children's use. Phonodiscs are used heavily by both adults and children, with additional heavy adult use of microfilms and heavy children's use of toys, games and puppets.

Substantial differences were found for in-house use ratios when the table count method was used. While the interviews and questionnaires report a 1.2 and 1 to 1 ratio, the table count ratios were lower in all six libraries, averaging 0.66 to 1. This strongly suggests that libraries using the table count method (recommended by the Output Measures) is substantially underrepresenting in-house use.

Attempts to measure the 80/20 rule for repeat use of materials revealed that approximately one in ten items was used more than once. Although this does not support the 80/20 rule, the serious limitations to the method used prevent any substantive conclusions regarding its veracity.

Section 2. Data From Unobtrusive Observation

Unobtrusive observation involved a technique that was somewhat different from the other methods and also imposed certain restrictions on the observer. Observers were asked to station themselves so that they could view a specific section of the library, e.g., several shelving ranges, or in a subject department. For each patron observed, information was recorded on sex, approximate age, the duration of the visit, and the number and types of materials used. Among the restrictions were that (1) observers were to watch no more than two people at a time; (2) the unobtrusive observation was restricted to an individual's use of materials in the library; observers did not collect data on materials an individual took to the circulation desk to check out; (3) observations were restricted to thirty minutes of any one patron, and the observers were asked not to follow patrons from one department to another. Similarly, the unobtrusive observation did not always permit identification of the type of book being used (e.g., fiction or nonfiction); the observer could record only the generic term "books". Because the observer had to estimate the age of the patron, it is possible that the age data are somewhat less accurate than through self-report. On the other hand, one advantage of this method is that it allowed the observation of the use of audio-visual as well as of print materials. Dallas Public Library chose not to participate in this part of the study.

A total of 550 unobtrusive observations were made with the largest number coming from Minneapolis, followed by Dauphin County and Arlington Heights (see Table 5-6). Male patrons were observed 62% of the time and females 38%.

Table 5-6

DISTRIBUTION OF UNOBTRUSIVE OBSERVATIONS BY LIBRARY

Library	No. of Observations/ % of Total
All libraries	550/100%
Arlington Heights	75/14%
Dauphin County	130/24%
Iowa City	71/13%
Minneapolis central library	212/38%
Rockingham County	62/11%

The distribution by estimated age of the patrons unobtrusively observed is quite consistent with the data obtained in the questionnaires and in the interviews, and indicates that younger patrons comprise a significant proportion of library users, with heaviest use coming in the early part of adulthood and child raising years (Table 5-7). The average (mean) age is 35, the median age 30.

Table 5-7

DISTRIBUTION BY AGE

Age Group	No. of Observations/ % of Total
15-24	140/26%
25-34	161/30%
35-44	89/16%
45-54	63/12%
55-64	57/10%
65 or more	33/ 6%
Total	543/100%

Readers were analyzed in terms of the amount of time they spent using the library materials (Table 5-8). Generally in-library use was short-term. Among individuals observed to use materials in the library, the largest proportion (more than one in four) used those materials for a total of five minutes or less. More than half used the materials for 15 minutes or less. Only one in five used materials for more than 30 minutes. The median duration was 12 minutes. This finding departs substantially from the data obtained in both the interviews and questionnaires which indicated that 55% and 67% respectively of the individuals using materials in the library used them for more than 30 minutes. Since the observers were instructed not to follow an individual from one department to another, any additional time spent by an individual in another part of the library would not have been recorded. This would result in an underestimation of the total time spent and could account for part of the variation in the findings. The duration of use was also analyzed by gender, but no substantial differences were found. Males used materials in the library an average of 15 minutes, females an average of 14 minutes.

Table 5-8

DURATION OF USE

Minutes	No. of Observations/ % of Total
1-5	150/28%
6-10	98/18%
11-15	70/13%
16-20	79/14%
21-29	35/ 6%
30 or more	113/21%
Total	545/100%

Table 5-9 shows the types of material used by the number of uses; the number of uses is greater than the number of users because a single patron could use more than one type of material. The pattern established in the unobtrusive observation supports the data obtained from the questionnaires, interviews and table counts. As in the interviews and questionnaires, the greatest proportion of uses was of nonfiction materials. The unobtrusive observations indicated that 42% of the items used was of nonfiction compared to 38% in the questionnaires and 58% in the interviews. As in the interviews, the second largest use was of magazines. As with the table count method, use of audiovisual materials comprised only a small portion of total in-house use. Approximately 7%

of the uses recorded by observation involved audiovisual materials, and of these the largest was records.

Table 5-9

TYPES OF MATERIAL USED BY NUMBER OF USES

Type of Material	No. of Uses/ % of Total
Books, Unspecified	43/ 7%
Fiction	81/13%
Nonfiction	265/42%
Magazines	113/18%
Newspapers	78/13%
Microfilm	12/ 2%
Records	24/ 4%
Tapes	7/ 1%
Total	623/100%

The data were examined to determine if use of material by type varied by gender (Table 5-10). When the means are inspected it would appear that females on the average use more fiction items than any other type and more than do males, and males more microfilm and records. The heavier use of fiction supports earlier findings. However, the small number of users makes such conclusions tenuous. In fact, when t-tests are applied to the means for each type of material by gender, no significant differences arise except for the "Books, Unspecified" category which, because of its unspecified nature, provides little information.

Summary -- The limitations of the unobtrusive observation method restricted the opportunity to provide comparative data for the interview and questionnaire results. Support was found for the finding that nonfiction materials comprise the largest proportion of in-library use and audiovisual materials again were only a small percentage of total in-house use. In addition, the unobtrusive observation suggested that much in-house use is short-term (less than 15 minutes).

Table 5-10

MEAN NUMBER OF MATERIALS USED BY TYPE, AND BY SEX OF PATRON

Type of Material	Number of Users	Mean Number of Items Used
Books, Unspecified		
Male	14	1.6
Female	13	3.3
Fiction		
Male	27	2.0
Female	29	4.1
Nonfiction		
Male	122	2.6
Female	66	2.3
Magazines		
Male	63	1.7
Female	31	1.7
Newspapers		
Male	60	1.2
Female	11	1.4
Microfilm		
Male	5	4.0
Female	7	1.4
Records		
Male	6	3.8
Female	2	1.5
Tapes		
Male	3	1.3
Female	0	0.0
Total for males	273*	2.3
Total for females	146*	2.5

* Total does not equal sum of column because a patron may use items from more than one category.

Section 3. Data From the Children's Questionnaires and Interviews

For the purpose of this study, children were defined as individuals between the ages of 10 and 14 inclusive. The number of respondents and interviewees in the children's portion of the study are much smaller than in the adult portion. This is due primarily to the fact that children's interviews and questionnaires were given low priority in comparison to the other data collection techniques (see methodology section of Chapter

1). In addition, difficulties with the children's questionnaire and interview process make statistical analysis of most of the data inappropriate. In this section, the data will be reported descriptively for all the libraries combined.

Children's Questionnaires -- A total of 386 questionnaires were completed by children with 40% coming from the Minneapolis system, followed by 19% from the Dallas system. 45% of the users were male, 55% female. 67% were between 10-12 years old, 33% between 13 and 14. Approximately 65% of the young people reported in-house use of library materials. This is quite similar to the adult questionnaire returns in which 63% of the respondents indicated that they used materials in the library.

In terms of the number of items used (Table 5-11), fiction represented the largest category (50%), followed by nonfiction (30%), magazines (17%) and newspapers (2%); the number of items in both the short-term and long-term fiction categories (328 and 262 respectively) is greater than either of the two nonfiction categories, or any other category. This is different from the data gathered from both the questionnaire and interview forms for adults, in which nonfiction dominated in-house use of materials and is most likely accounted for by the fact that children are likely to use fiction items for both recreational use and for school assignments.

Table 5-11

NUMBER OF ITEMS USED AS REPORTED ON THE CHILDREN'S QUESTIONNAIRES

Type of Material	Number of Items Used/ % of Total	Number of Children/ % of Total	No. of Items Per Child	
			Mean	Median
Fiction for a minute	328/28%	84/22%	3.9	3.0
Fiction for longer	262/22%	70/19%	3.7	2.0
Nonfiction for a minute	185/16%	66/18%	2.8	2.0
Nonfiction for longer	160/14%	62/16%	2.6	2.0
Magazines for a minute	107/ 9%	41/11%	2.6	2.0
Magazines for longer	92/ 8%	33/ 9%	2.8	2.0
Newspapers for a minute	14/ 1%	12/ 3%	1.2	1.0
Newspapers for longer	17/ 1%	8/ 2%	2.1	1.0
Total	1165/100%	176*/100%	6.6	4.0

* Column total is not equal to the sum of categories because a patron may use materials in more than one category.

The mean number of materials used by children in the library follows a pattern similar to the number of items; the highest means are found in long and short-term uses of fiction, followed by short-term use of nonfiction and long-term use of magazines. The mean number of materials used in the library is 6.6. The number of users exhibits the same pattern as use by type of materials; the number of fiction users is the largest, followed by non-fiction, magazines and newspapers. When respondents were analyzed by duration of stay in the library, a pattern reminiscent of the adult questionnaires and interviews is found (Table 5-12). A large percentage of all patrons who come to the library remain in the library for under 30 minutes (48%), and the vast majority (88%) are in the library for under 2 hours. As duration increases, the percentage of patrons decreases. Also, similar to the adult data, when in-house users are studied separately, the largest number of users is found in the 1/2 to 2 hours category (47%), although a substantial portion (38%) are in the library for under 30 minutes.

Table 5-12

DISTRIBUTION OF RESPONSES FOR ALL RESPONDENTS AND IN-HOUSE USERS BY DURATION

Time	All Respondents/ % of Total	In-House Users/% of Total/ % of Respondents in Category
Less than 30 minutes	170/48%	88/38%/52%
1/2 to 2 hours	141/40%	108/47%/76%
More than 2 but less than 4 hours	35/10%	25/11%/71%
4 or more hours	10/ 3%	8/ 4%/80%
Total	356/100%	229/100%/64%

The respondents were also analyzed in terms of their reasons for coming to the library (Table 5-13). The dominant reasons for these children's visits to the library were to check out materials and to do school assignments, followed (at a distance) to return books and to use materials in the library. As mentioned in the analysis of the adult responses, although patrons could indicate that their primary reason for coming was to "Use Materials in the Library," it is also important to examine other reasons that imply either directly or indirectly the use of materials in the library. Such reasons include those related to the completion of school assignments, and to get information from a librarian.

The ratio of materials used in the library by the children to materials checked out is 1.2 to 1 (1165 items used in-house to 921 items checked out). This ratio is similar to the results of the adult questionnaire (1 to 1), and reflects the same disparity with previous research which used the count of materials on tables as the data collection method.

Table 5-13

DISTRIBUTION OF CHILDREN'S QUESTIONNAIRE RESPONDENTS BY REASONS FOR COMING TO THE LIBRARY

	All Respondents	In-House Users
Reason	No. of Responses/ % of Total	No. of Responses/ % of Total/% of Respondents in in Category
Return materials	42/12%	23/10%/55%
Attend a program	5/ 1%	2/ 1%/40%
Do school assignment	107/31%	70/32%/65%
Get information from a librarian	17/ 5%	11/ 5%/65%
Bring a sibling	3/ 1%	1/ * /33%
Meet someone	12/ 3%	9/ 4%/75%
Attend a meeting	2/ 1%	2/1%/100%
Check out materials	110/32%	73/33%/66%
Use materials in the library	40/12%	29/13%/72%
Use the restroom	5/ 1%	0/ * / 0%
Other	6/ 2%	2/ 1%/33%
Total	349/101%+	222/100%/64%

* less than 0.5%

+ due to rounding does not equal 100%

Children's Interviews -- A total of 63 children were interviewed, 19 from Arlington Heights, 17 from Iowa City, 14 from Dauphin County, 7 from Rockingham County, and 6 from Minneapolis. Although this number is quite small, the data obtained are similar to the results from the interviews with adults. Among those interviewed, 34 children (54%)

used materials in the library; 57% of the interviewees were male, 43% female; and 59% were between 10 and 12 years old, 41% 13 or 14. In terms of the duration of their stay, the greatest proportion spent one-half to two hours in the library (52%), and 38% spent less than thirty minutes.

Of the types of materials used, 9 patrons used fiction (39 items), 22 used nonfiction (57 items), 4 used magazines (6 items), and 2 used newspapers (2 items). The number of users by type exceeds the total number who said that they used materials in the library, because a single individual may have used more than one type of material. As with the other data collection procedures, the ratio of in-house use to external circulation reported by these young interviewees is greater than the 0.5 to 1 ratio found by table counts in previous research. The ratio found is 0.9 to 1, close to the ratio found in the interviews with adult patrons (1 to 1).

The reasons for these children's visits to the library follow the same pattern as in the adult interviews (Table 5-14). The largest percentages came to do a school assignment and to check out materials, and, as a poor third, to use materials in the library.

Table 5-14

DISTRIBUTION OF INTERVIEWED CHILDREN BY REASONS FOR COMING TO THE LIBRARY

Reason	No. of Responses/ % of Total
Return materials	6/10%
Do a school assignment	23/37%
Get information from a librarian	2/ 3%
Bring a sibling	2/ 3%
Meet someone	1/ 2%
Check out materials	18/29%
Use materials in the library	7/11%
Use the restroom	1/ 2%
Other	2/ 3%
Total	62/100%

Summary -- The data gathered from the children's interviews and questionnaires must be treated cautiously. Low priority was assigned to this part of the study which resulted in small sample size, especially in the interviews. In addition, several methodological problems may have seriously affected the data obtained. Most prominent is the lack of confidence in the responses provided by the children. For this reason, little statistical analysis was conducted, although some data are reported in descriptive form.

Despite the methodological problems, however, the data obtained are generally consistent with the in-house use patterns found in the methods discussed in earlier chapters. As with adults, a substantial percentage of children who come to the library use materials while there (67% compared to 63% in the adult questionnaire and 47% in the interview). Children used approximately the same number of materials while in the library (6.6) when compared to adult questionnaires and interviews (5.6 and 6.2 respectively). Their duration of stay was also similar with between 88% and 90% staying in the library for under two hours, compared to 94% among adults. In addition, the ratio of materials used in the library to materials checked out for the children's questionnaires and interviews (1.2 to 1 and 0.9 to 1 respectively) were quite close to the 1 to 1 ratios found for adults. The major difference in the findings comes in the type of materials used. Fiction comprised the greatest percentage of use among children (50% of the items used and 41% of the users). Adults, on the other hand, demonstrate much heavier use of nonfiction items. This disparity may reflect both predominance of recreational reading on the part of young people and greater use of fictional materials as part of school assignments.

Section 4. Data from the Illinois Public Library Cooperative Research Group Study of the In-House Use of Library Materials

In May 1984, the Illinois Public Library Cooperative Research Group (CRG) selected the in-house use of library materials as the topic for study for the ensuing year. The CRG is an informal group of public libraries in Illinois which work with the Library Research Center in the conduct of research studies of mutual interest. When an appropriate study is identified, volunteers from the public libraries of the State are solicited. The Library Research Center designs the study, formulates the survey instrument, analyzes the data, and writes a report of the results; the participating libraries collect the data, and each party pays its own direct costs.

The main purpose of the in-house use study was to compare two alternative ways of counting the number of materials used in the library. The first technique was to count materials found on tables and other surfaces as detailed in ALA's Output Measures, except that instead of counting materials for a sample week, materials were sampled one day a month for six months.

In the count of materials used, data were recorded in ten categories: adult circulating nonfiction books; adult fiction; adult reference books; juvenile fiction books; juvenile easy and picture books, juvenile reference books; magazines and newspapers, pamphlets, pictures and other print controlled materials; and all other items.

The second method of collecting data in this study involved the distribution to patrons of a one-page questionnaire asking for the number of items being checked out and for the number which had been used in the library. The items used in the library were recorded in four categories: fiction books/novels; circulating nonfiction books; reference books; non-book materials (magazines, newspapers, phonorecords, microfilm, etc.). Each category was further subdivided as to the duration of use, i.e., less than two minutes, 2-10 minutes, and more than 10 minutes.

The questionnaire was distributed to all adult individuals over the age of 15 who entered the building on each survey day. Out of 3266 responses, only 29 (1%) were children. In addition, demographic data were gathered in regard to sex, occupation, age, and level of formal education completed. Eight occupational groups were shown on the survey form: professional; manager; clerical/sales; unskilled, semi-skilled or skilled worker; student; homemaker; retired/unemployed; and "other". Age was subdivided into less than 20, 20-29, 30-39, 40-49, 50-59, 60-69, and 70 and over. Educational level was divided into no more than completion of elementary school, some or all of high school, some or all of college, and study beyond four years of college.

Three small public libraries in Illinois cooperated in collecting the data: Warren-Newport Public Library District with a population of 24,619 and a circulation of 161,933; Round Lake Area Public Library District with a population of 21,455 and a circulation of 81,981; and Woodstock Public Library with a population of 20,000 and a circulation of 178,000.

The data suggest that, like the other data collection methods used in this study, in-house use is common among library visitors (Table 5-15). Approximately 47% of all library patrons use library materials while in the library. There was only slight differences in the percentages of in-house users among the three libraries. Duration of stay in the library was not analyzed in the cooperative study, but duration of use of materials was. The data reveal that only a small portion of in-house users (29%) used one or more materials for 10 minutes or more supporting the previous findings in this study that most in-house use is short-term.

Table 5-15

DISTRIBUTION OF RESPONSES BY LIBRARY FOR ALL CRG RESPONDENTS AND IN-HOUSE USERS

		Respondents Using Materials In the Library	
		All	Used 10 Minutes or More
Library	Number of Responses/ % of Total	Number of Responses/ % of Total/% of Responses in Category	Number of Responses/ % of Total/% of Responses in Category
Warren-Newport	1496/46%	673/44%/45%	186/42%/12%
Round Lake	717/22%	331/21%/46%	91/21%/13%
Woodstock	1053/32%	540/35%/51%	165/37%/16%
Total	3266/100%	1544/100%/47%	442/100%/14%

The educational distribution was somewhat different than the Coalition data (Table 5-16). A larger proportion of patrons who used materials in the library had obtained an educational level no greater than high school (36%) compared to 23% for the Coalition questionnaire and 18% for the interviews. This is likely accounted for by the fact that the Cooperative libraries were all located in small towns and rural areas of Illinois. Nonetheless, the data from the Cooperative study still supports, albeit less so, the notion that library patrons and in-house users are better educated than the general population, with 64% having attended college and 23% having more than 4 years of college. Interestingly, the educational category with the highest percentage of users are those with the least education. 57% of the patrons with only an elementary school education used materials in the library. This pattern is not found in the Coalition data and it may be an anomalous condition due to the small number of individuals (61) in this category; small changes in the number of in-house users would substantially affect percentages in this category.

Table 5-16

DISTRIBUTION OF RESPONSES BY EDUCATIONAL LEVEL FOR ALL CRG RESPONDENTS AND IN-HOUSE USERS

		Respondents Using Materials In the Library	
		All	Used 10 Minutes or More
Educational Level	Number of Responses/ % of Total	Number of Responses/ % of Total/% of Responses in Category	Number of Responses/ % of Total/% of Responses in Category
Up to completion of elementary school	61/ 2%	35/ 2%/57%	11/ 2%/18%
Up to completion of high school	1120/35%	517/34%/46%	137/31%/12%
Up to completion of college	1350/42%	626/41%/46%	188/43%/14%
More than 4 years of college	659/21%	343/23%/52%	105/24%/16%
Total	3190/100%	1521/100%/48%	441/100%/14%

When the mean number of items used per educational level was examined, again, the lowest level of formal education had the highest mean (5.9 items per user). However, when the means were subjected to an analysis of variance, chance alone could not be eliminated as the cause of the differences by educational level ($p = .11$) (Appendix C-4).

When users are examined by age categories, the general patterns established in the Coalition study are supported (Table 5-17). A substantial percentage of in-house users are young people, 55% are under 30, and 81% are under 40. This distribution is weighted even stronger toward younger age groups than the Coalition data in which 66% are

As in the analysis by educational level, an attempt was made to determine if the mean number of items used in the library varied by age group. The highest mean was found for those over 70 (7.2 items, N=11 respondents) and the lowest was in the 60-69 age group (3.3 items, N=19 respondents). It is possible that these extremes in means were affected by the small sample size in each category. Statistical tests revealed no significant differences between the age categories (Appendix C-4).

Table 5-17

DISTRIBUTION OF RESPONSES BY AGE FOR ALL CRG RESPONDENTS
AND IN-HOUSE USERS

		Respondents Using Materials In the Library	
		All	Used 10 Minutes or More
Age	Number of Responses/ % of Total	Number of Responses/ % of Total/% of Responses in Category	Number of Responses/ % of Total/% of Responses in Category
Less than 20	497/15%	275/18%/55%	91/21%/18%
20-29	1349/42%	568/37%/42%	152/34%/11%
30-39	836/26%	403/26%/48%	111/25%/13%
40-49	401/12%	198/13%/49%	66/15%/16%
50-59	59/2%	39/3%/66%	11/2%/19%
60-69	53/2%	33/2%/62%	6/1%/11%
70+	35/1%	17/1%/48%	5/1%/14%
Total	3230/100%	1533/100%/47%	442/100%/14%

An analysis of in-house users by occupation reveal similar characteristics to both the interviews and questionnaire data in the Coalition study (Table 5-18). Again, the pattern of younger individuals and better educated ones is supported by analysis of occupations. Professionals and students constitute the largest percentages of in-house users (28% and 17% respectively for the Cooperative study; 31% and 22% for the Coalition questionnaires; 31% and 20% for the interviews). Although professionals comprise the largest percentage of all users, students comprise the occupational category with the largest percentage of in-house users when compared to all members in its own category; 55% of all students used materials while in the library. In addition, the percentage of students using materials 10 minutes or more is larger

(19%) than any other occupational group. Interestingly, students are followed closely by retired and unemployed individuals of whom 50% used materials and 18% for 10 minutes or more. As in the Coalition study, the unemployed apparently make disproportionately large use of library materials whether for recreational or information use.

Table 5-18

DISTRIBUTION OF RESPONSES BY OCCUPATION FOR ALL CRG RESPONDENTS AND IN-HOUSE USERS

		Respondents Using Materials In the Library	
		All	Used 10 Minutes or More
Occupation	Number of Responses/ % of Total	Number of Responses/ % of Total/% of Responses in Category	Number of Responses/ % of Total/% of Responses in Category
Professional	888/28%	433/28%/49%	129/30%/14%
Manager	174/5%	79/5%/45%	23/5%/13%
Clerical or Sales	335/10%	135/9%/40%	27/6%/8%
Unskilled or skilled worker	330/10%	159/10%/48%	46/11%/14%
Student	562/17%	310/20%/55%	108/25%/19%
Homemaker	593/18%	241/16%/41%	39/9%/6%
Retired/Unemployed	327/10%	163/11%/50%	59/14%/18%
Other	14/1%	10/1%/71%	4/1%/28%
Total	3223/100%	1530/100%/47%	435/100%/13%

When the mean number of items used in the library is analyzed by profession, students have the highest mean, with 5.3 items used per student; the lowest mean is for managers, 3.0 items. An ANOVA test, however, indicates that the means are not sufficiently different that chance alone may not have accounted for the disparity ($p = .31$) (Appendix C-4).

In addition, an analysis of mean number of items used in-house by gender was also made (Appendix C-5). For all in-house users, females were found to use more items than did males, 5.2 to 4.2. When including only those patrons who used at least one item for 10 minutes or more, similar significant differences in the means of items used in the library were found between females and males (6.2 to 4.9 items respectively). This is consistent with the findings of the Coalition study.

When in-house use is analyzed by type of material, the results again reflect the Coalition data (see Table 5-19). In the Coalition data, the largest category of use is nonfiction. Because reference materials were not separated out in the Coalition questionnaire, to get comparable figures in the Cooperative study we must combine nonfiction and reference books (assuming that most reference material is nonfiction). When these data are combined, total nonfiction materials represent the largest category (45%) consistent with the Coalition findings.

As in the adult questionnaire data obtained through the Coalition, fiction is not the largest category of use but is used in larger numbers per patron than is any other type (Appendix C-3). This suggests that browsing among fiction books is greater than of nonfiction items.

Table 5-19

CRG RESPONDENTS' USE OF MATERIALS IN THE LIBRARY BY TYPE

Type of Material	No. of Users % of Total	Number of Items Used/ % of Total	Average No. of Items Used per Patron Mean	Average No. of Items Used per Patron Median
Fiction books	209/20%	1207/24%	3.9	3.0
Nonfiction books	301/28%	997/20%	3.3	2.0
Reference books	430/41%	1236/25%	2.9	2.0
Non-book materials	541/51%	1541/31%	2.8	2.0
Total	1055*/100%	4981/100%	4.7	3.0

* Column total does not equal sum of column because a patron may use items from more than one category.

Consistent with the interpretation that a significant portion of in-house use of fiction is browsing, two-thirds of the fiction items consulted were used for less than two minutes (Table 5-20). In contrast, almost two-thirds of the nonfiction items consulted were used for two or more minutes. Similarly, reference materials were consulted for the longest period with 70% of all their uses lasting for more than two minutes. The use of nonbook items, including periodicals, was almost equally divided among the time categories. However, when all materials are taken into account, both the number of uses and the number of items used are nearly equally distributed in terms of duration. About one-third of the users fall into each of the three categories for duration of use.

Table 5-20

DURATION OF USE OF MATERIALS IN THE LIBRARY BY TYPE

Type of Material	No. of Users % of Total	Number of Items Used/ % of Total	Average No. of Items Used per Patron	
			Mean	Median
Fiction				
Less than 2 minutes	189/55%	799/66%	4.2	3.0
2-10 minutes	77/22%	183/15%	2.4	2.0
Over 10 minutes	79/23%	225/19%	2.8	2.0
Nonfiction				
Less than 2 minutes	135/38%	382/38%	2.8	2.0
2-10 minutes	123/35%	351/35%	2.8	2.0
Over 10 minutes	96/27%	264/26%	2.8	2.0
Reference Books				
Less than 2 minutes	136/26%	372/30%	2.7	2.0
2-10 minutes	214/41%	449/36%	2.1	2.0
Over 10 minutes	171/33%	415/34%	2.4	2.0
Nonbook Materials				
Less than 2 minutes	171/27%	403/26%	2.4	2.0
2-10 minutes	236/38%	548/36%	2.3	2.0
Over 10 minutes	220/35%	590/38%	2.7	2.0
Total Materials				
Less than 2 minutes	631/34%	1956/39%	3.1	2.0
2-10 minutes	650/35%	1531/31%	2.4	2.0
Over 10 minutes	566/31%	1494/30%	2.6	2.0
Total	1055*/100%	4981/100%	4.7	3.0

* Total does not equal sum of column because the same patron may use items for different lengths of time.

The ratio of materials checked out to materials used in the library confirms both previous research and the findings of the Coalition study (Table 5-21). Using the count of materials on tables, the average 0.5 ratio of materials used in the library to materials checked out is consistent with previous research in public libraries. Although the average ratio based on the questionnaires (0.83) is somewhat lower than that obtained from the Coalition questionnaires (1.2), it is still substantially higher than the 0.5 ratio obtained from table counts. this supports the notion that table counts probably underrepresent actual in-house use. The fact that a lower questionnaire ratio was found in the Cooperative study than in the larger Coalition libraries may be explained by the fact that there were no large urban libraries represented in the former group. As was noted in Chapter 3, the larger the library the larger the in-house use ratio. Hence, one would have predicted a somewhat lower ratio in the three small Cooperative libraries than in the Coalition libraries.

Table 5-21

RATIO OF MATERIALS USED IN-HOUSE TO MATERIALS CHECKED OUT, BY LIBRARY, USING TWO DIFFERENT METHODS OF COUNTING

Part A: Count of Materials Found on Tables

Library	No. of Items Used In-House/ No. Checked Out	Ratio to One
All libraries	4157/8334	.50
Warren-Newport	1794/3394	.53
Woodstock	1647/3277	.50
Round Lake	716/1663	.43

Part B. Questionnaire Data

Library	No. of Items Used In-House/ No. Checked Out	Ratio to One
All libraries	4981/6027	.83
Warren-Newport	2208/2687	.82
Woodstock	1846/2135	.86
Round Lake	927/1205	.77

In addition we sought to determine whether in-house use could be predicted by external circulation. The number of materials used in-house in each library was correlated with the number of materials checked out. Similar to the Coalition study results, the correlations are low between in-house use and external circulation of each library (Warren-Newport .12; Woodstock .12; Round Lake .18). For all libraries combined, the correlation is .13. In each case external circulation accounted for only 1% to 3% of the variations in in-house use. External circulation is, therefore, not a good predictor of in-house use based on these data. Nonetheless, if consistent ratios between in-house use and external circulation can be established on a year-to-year basis, it is possible that external circulation figures could be used to approximate in-house use.

Summary -- The results of the Illinois Public Library Cooperative Research Group study tend to support the findings of the Coalition study. Approximately one-half of all library patrons use materials in the library; like the composition of library patrons as a whole, in-house users tend to be young, with higher levels of formal education than the general population. The most common users of the library are professionals and students. The largest number of users read nonfiction books, and the largest number of items used are of the nonfiction collection; but the largest mean number of items used per patron is in the short-term use of fiction, suggesting that when fiction is consulted briefly it is for browsing purposes.

A comparison of the in-house use ratios (based on the table count method and questionnaire data) supported the pattern of the Coalition study--that ratios obtained from table counts are smaller than those obtained by questionnaires (0.5 to 1 compared to 0.8 to 1). The lower ratio obtained in the Cooperative study of 0.8 to 1 compared to the 0.9 to 1 and 1.2 to 1 ratios of the Coalition study may result from the smaller size of the libraries in the Cooperative study. The ability to predict in-house use from external circulation for a given library is poor. Correlation coefficients for each library and for all libraries combined are weak, suggesting that external use is a poor predictor of in-house use.

CHAPTER 6

CONCLUSIONS OF THE STUDY

In this chapter, the data from each method will be integrated to answer the following questions: (1) What type of materials are used, and who uses material in the library? (2) What is the ratio of materials used in the library to materials checked out? (3) Can in-house use be predicted through or by other variables such as circulation, visitor count, number of reference questions asked, size of acquisitions budget, or number of public service staff? (4) What is the best method for measuring the in-house use of library materials? During the discussion of methods, there will also be a discussion of the problems that arose while conducting the study.

Section 1. What Type of Materials Are Used, and Who Uses Materials in the Library?

The data reveal that a substantial portion of library patrons use materials in the library while they are visiting. Based on the data from both the Coalition and the Illinois Cooperative studies, in-house users range from 47% to 63% of adult library patrons. The average is 54%. Generally, patrons who use library materials in-house are better educated than the general population, but not better educated than other library patrons. The data from the interviews and questionnaires agree that a majority of such patrons possess less than a bachelor's degree, and about 20% a high school education or less. Females are overrepresented in the lower educational categories and underrepresented in the higher educational levels. Nonetheless, a greater percentage of library users have higher degrees than in the general population. The interview, questionnaire and Illinois Cooperative study data all indicate that nearly 50% of in-house users identify themselves as either professionals (approximately 3 in 10) or students (approximately 1 in 5).

The belief that the unemployed place considerable reliance on the library for information is confirmed by the data. The interviews revealed that a disproportionately large number of unemployed individuals came to the library to get information from a librarian. Similarly, the questionnaires revealed that the unemployed place a greater reliance on using materials in the library itself; 39% of the unemployed patrons said that their primary reason for coming to the library was to use materials in the building. This is well above that of any other occupational group.

Data from the interviews, questionnaires and unobtrusive observation all reveal that often the largest number of items used are nonfiction and the largest number of patrons use nonfiction. Data from the count of materials on tables were consistent with these findings in indicating that the largest number of print items used in the library was reference books, followed by circulating nonfiction, magazines, newspapers and fiction; more than 62% of print items used were either reference or circulating nonfiction materials. This is further supported by the count of materials in the audiovisual area; 58% of all A-V use was of microfilm. The in-house use of nonfiction is frequently short-term; next most frequent is either short-term use of fiction or short-term use of periodicals. Short-term use of materials is heavier in larger libraries; long-term use is heavier in smaller libraries. Use of fiction in the library also varies within a library system, and is more frequent in the branches than in the main library.

Informational users tend to be males; recreational users female. The interviews indicated that a significantly larger number of males used nonfiction, magazines and newspapers; while a significantly larger number of females used fiction. The questionnaires revealed that females may in fact consult more items of both fiction and nonfiction in the short-term than do males, but males consult newspapers for long-term use in significantly greater numbers. Generally speaking, the median number of items used ranged from three to four per in-house user.

Section 2. What Is the Ratio of Materials Used in the Library to Materials Checked Out?

There is considerable reason to believe that, in the past, the number of materials used in the library have been underrepresented. Using the technique of counting materials left on tables, the ratios in the Coalition study have generally ranged between 0.1 to 1.0 items used in the library to each item checked out. The table count produced a ratio of 0.66 for all libraries combined and a mean ratio of 0.5 to 1. This is consistent with earlier studies in public libraries which produced ratios of approximately 0.5 to 1. Similarly, the Illinois Public Library Cooperative Research Group study used the table count method, and confirmed the 0.5 to 1 ratio.

In order to provide additional comparative information, the Library Research Center gathered data on a large number of public libraries. Using the latest available figures from the National Center for Education Statistics (NCES) for 1978, a total of 8,456 public libraries reported the number of items used in the library for a typical week. When projected to a year, the ratio of in-house use to external circulation for all libraries combined was 0.20 to 1. When the data are further analyzed by size of library using population served as the measure of size, the following in-house use ratios emerge:

Population Size	N	Circulation/In-House Use	Ratio
500,000 or over	54	207,282,331/48,845,304	0.24
250,000-499,999	61	94,212,821/15,243,332	0.16
100,000-249,999	219	140,256,132/27,414,920	0.20
50,000-99,999	444	142,948,293/31,974,956	0.22
10,000-49,999	2,176	276,413,613/57,748,869	0.21
Under 10,000	5,502	125,601,386/17,588,480	0.14

The data from NCES indicates comparatively low in-house use ratios. The pattern of larger ratios for larger libraries is supported only in regard to the libraries serving the largest and smallest populations. Libraries in the middle population ranges have roughly similar ratios. In fact, all the ratios indicate relatively low in-house use, which reflects the likelihood that table counts are being used to establish the number of items used in the library.

Additional data on in-house use ratios were compiled by the Library Research Center from state library reports and annual reports from individual public libraries. Data on a total of 614 public libraries were recorded. The in-house use ratio for all libraries combined was 0.42 to

1. Of 143 libraries serving a population of 25,000 or more, the in-house use ratio was 0.37 to 1. Similarly, the "National Report of Output Measures Data," published by Zweizig (1983) gives a ratio for 49 multiple outlet libraries of 0.42 to 1, and for single outlet libraries 0.35 to 1.

Given the considerable preponderance of ratios below 0.5, it is noteworthy that both the interviews and the questionnaires in the present study produced considerably larger ratios, 0.9 to 1 and 1.2 to 1. If the larger ratios are correct, libraries have been under-counting the number of materials used in-house by at least one-half.

It is possible that some of this underrepresentation is due to the fact that table counts are measuring a different type of in-house use--use of materials consulted for longer periods of time, in contrast to browsing and quick reference searches. The latter types of material are likely to be reshelved and therefore not placed on tables to be counted. If one makes the assumption that these brief consultations are qualitatively less important, then table counts may in part be measuring the type of in-house use of more interest to libraries. When the data from the interviews and questionnaires were analyzed using only materials used "for a longer period of time," the in-house use ratios dropped considerably, 0.36 and 0.42 to 1, respectively, ratios much closer to 0.5 to 1. Of course, the assumption that short-term consultation of materials is less valuable may not be correct for a variety of reasons that were discussed previously (Chapter 3, Section 4). Other methodological problems that could result in an underrepresentation of in-house use will be discussed in Section 4. What is clear is that the method of table counts produces substantially lower in-house use ratios; questionnaires and interviews produce higher ratios, and that there is a distinct possibility that overall in-house use is being underrepresented using the table count method.

Section 3. Can In-House Use Be Predicted Through the Use of Other Variables?

The data in this study suggest that is is very difficult to predict the size of in-house use from the variables considered in this study, viz., number of reference questions asked, visitor count, number of FTE of public service staff, external circulation and acquisitions budget. Particular attention was paid to the relationship of external circulation and in-house use. When comparing libraries, it is clear that there is a strong positive correlation between all the selected variables and in-house use. For example, one can predict that a library with a larger circulation or visitor count will have a larger in-house use. Regression analysis revealed that visitor count was, in fact, the strongest predictor. The degree of correlation was .61 for interviews and .98 for questionnaires. (This was based on data from Rockingham County, Dauphin County and Minneapolis because only they provided data on all variables.)

But the strong correlations between the selected variables and in-house use appear to dissipate when one considers a given library rather than comparing libraries. Correlations, for example, between in-house use and external circulation from both the interview and questionnaire data in a given library were often below .30. Similarly, in-house use ratios for a given library by month are not consistent, supporting the idea that other factors contribute substantially to the variation in in-house use. In addition, the ratios of in-house use and other selected variables for a given library and among libraries varied widely, suggesting that they also were not good predictors. It is premature, however, to reject entirely the hypothesis that some of these variables are good predictors of in-house use. As mentioned previously, the manner in which ratios between in-house use and some of the selected variables (number of FTE of public service staff, visitor count and number of reference questions asked) were necessarily calculated imposes limitations on the conclusions drawn. Values for these variables were based on actual figures for the entire day, while the values for the in-house use in the interviews and questionnaires were based on sample respondents. Factors affecting data collection on those days may well have substantially affected the ratios. These limitations imposed on the data analysis must increase our caution about drawing too firm conclusions.

Nonetheless, the available data suggest that no single variable may enable us to measure accurately the magnitude of use, much less its quality. It would be better at this point to measure in-house use directly rather than attempt to predict its size from other variables. Further, it must be kept in mind that the selected variables were examined only in regard to their ability to predict in-house use; no attempt was made to assert that these variables cause it. It seems reasonable that no one variable would cause in-house use, and if multiple causes were involved, then the inability of one variable to predict in-house use would be logical (unless that single variable was closely associated with all the major causes). The lack of a good predictive variable suggests a search for causal variables that would help us understand in-house use. Some possible causes are (1) the quality of the reference collection; (2) policies that restrict or promote circulation of materials; (3) friendliness or competence of the library staff; (4) conduciveness of the physical facility, including pleasant surroundings, number of work tables, comfortableness of chairs, perception of security, and adequacy and expensiveness of parking facilities; and (5) number of library programs offered. These variables suggest themselves for correlational and causal research and may explain the large amount of variance unaccounted for in the present study.

Section 4. What is the Best Method for Measuring the Use of Materials in the Library?

The Coalition study used four data collection methods: questionnaires, interviews, unobtrusive observation, and a count of materials left on tables. One purpose of the study was to compare these methods. The comparison of methods is based on the specific experience and observations of the data collectors, contact persons and Library Research Center personnel involved in the collection and processing of the data. The data collectors were asked to consider such topics as: (1) What were the problems with distributing the surveys? (2) What were the problems with conducting interviews? (3) What were the problems with the unobtrusive observation? (4) What were the problems with the count of materials left on tables? (5) What were some of the overall problems?

The data collectors experienced little dissatisfaction with most aspects of the data gathering process, but when data collection is scheduled on more than one day (and in our case at least a month apart), several problems can arise. In a few instances the participating libraries could not conduct the appropriate data collection methods on the days specified for various reasons, ranging from weather conditions that forced the closure of the library, to forgetfulness on the part of the branch staff to distribute questionnaires. In each case, the libraries were assigned new dates on which to conduct the study; no opportunities for data collection were lost, and there is no reason to believe that the changes in date affected the results of the study. Though such problems can be expected with any method that spreads out data collection over a lengthy time period, it is a small price to pay for the sampling of patrons over a period of 6 to 12 months. There were marked differences in the number of items used and the number of patrons coming to the library on the six different survey days. This suggests that different days of the week and different periods of the year show different use. The methods used by the Coalition involved dependence on the U.S. mail. Overall, this worked out well; our most serious loss of data occurred when questionnaires sent from Iowa City (IA) in January 1985 failed to reach the Library Research Center in Urbana (IL).

Questionnaire Method -- Overall, the self-administered patron questionnaire proved to be a practical method of data collection. In comparison with the interviews where patrons were also directly involved, the questionnaire technique obtained by far a larger number of responses in the same time period. A large sample is generally desirable because it is likely to be more representative than a small sample, and because it allows for analysis of sub-groups. Although the questionnaire method proved worthwhile, it relies on several assumptions that one must keep in mind when drawing conclusions about the data: that the patron will answer truthfully, accurately and completely; that the patron will follow the instructions correctly; that the patron understands the questions asked; that the questions asked effectively elicit the desired information; and that the questionnaire is distributed in an unbiased fashion.

Given these assumptions there are several advantages to the use of a questionnaire: (1) The questionnaire is easily administered. Data collectors merely had to hand the item to patrons; they were not required to instruct the patron in its use, identify materials used by the patron, or interpret patron behavior. As a result, little training was required of the data collector. (2) The questionnaire assures that each patron is asked the same questions in the same way. (3) The cost per questionnaire is small (large numbers of questionnaires can be printed at less than $.05 per copy), and there is little time required on the part of the staff per patron queried. (4) The time required for the patron to fill out the questionnaire is relatively short. In a pre-test of the questionnaire used in this study, patrons found the form easy to fill out, and they reported that the length of time required to complete the questionnaire was acceptable. Although patrons were not timed, it was clear that many took less than five minutes to complete the form.

The questionnaire proved to have a few drawbacks. Most conspicuous was the difficulty in its use by children. When pre-tests of the questionnaire were conducted, there was evidence that children overrepresented their use of materials in the library. Adults sometimes answered the questions incompletely or inconsistently. For example, some questionnaires were incomplete because the respondents did not realize that there were questions on the reverse side of the page. Similarly, although patrons were asked to select only one of several choices, they often selected more than one. There is no way by which to interpret accurately incomplete or ambiguous responses. This was particularly troublesome when patrons were asked how many items of a particular type they used while in the library, and respondents often put an "X" or check-mark to indicate the type of material used but not how many items were used. Another problem with questionnaire administration involves repeat responses by the same patrons on different survey days. In at least one library, Rockingham County, several patrons complained about having to fill out the forms more than once, and refused to do so. At Dauphin County, patrons were seen to avoid or ignore staff members distributing questionnaires. At Arlington Heights, problems with the computerized circulation system resulted in long waiting lines at checkout counters, and the data collectors consequently had a difficult time getting the frustrated patrons to fill out the questionnaires.

Another limitation to the questionnaire method is the likelihood of unusable questionnaires; 188 questionnaires (2.5% of all those collected) had to be removed from data analysis in this study. Generally, these questionnaires were excluded because the entries were unreadable, the information reported was impossible or illogical, or too little data were provided to make inputting worthwhile.

A special type of problem with the questionnaire method arose when computer terminals were used. A secondary aspect of this phase of the study was to assess public response to the collection of questionnaire data by patrons using computer terminals. Arlington Heights and Dallas agreed to use their Apple computers for this purpose. A computer program was prepared, tested by the Library Research Center, and forwarded to the participating libraries. Unfortunately, the data collected were not included in the analysis because several mishaps occurred in the administration of the questionnaire by computer. In one instance, the disk apparently failed to operate; in another, the terminal and disk appeared to operate normally but when the disk was removed, no data had been recorded. Both disks were tested upon their return to the Library Research Center and appeared to be functioning normally.

In another instance, there was a misunderstanding as to the placement of the terminal. It was originally agreed that the terminal would be placed in a high traffic area available to the general public; however, the terminal was in fact placed in a computer room open to the public but where traffic was relatively light. Finally, in the few instances in which responses were actually collected, there was some doubt as to the validity of the data obtained. In numerous cases, individuals recorded unreasonably high numbers of items used, and the same numbers were repeated in the response for many or all of the different types of materials used. It is assumed the respondent entered the same number in response to each question asked by the computer; in one case, out of 27 entries, 13 were suspicious. As a consequence, it was decided not to include the data from the computer. It would be unfair, however, to conclude that computers cannot be used in data collection; the Library Research Center has completed successfully a patron survey in 60 Illinois public libraries using microcomputers (Goldhor, 1985).

Interviews -- The interview method produced the second largest number of patron responses (almost four times larger than unobtrusive observation). The method is more costly than the questionnaire per patron because it takes much longer for someone to interview a patron than to hand out a questionnaire. In addition, because of the sensitivity of the human interaction, the interviewer requires more training and more supervision. As with the questionnaire, there are several assumptions that underlie the interview method of data collection. Among these are that the interviewees are truthful, accurate and complete in their responses; that the data collector does not influence responses of the interviewee through differences in the phrasing of questions, tone of voice, or body language; and that the interviewee understands the questions being asked.

Generally, the data gathered by this technique were similar to those gathered by the questionnaire. But on the basic question of the ratio of in-house use to external circulation, the interview ratios were lower than those obtained through the questionnaire and higher than those obtained through the count of materials on tables. The interview method had several advantages; most notably, ambiguity or incompleteness in responses could be clarified by the interviewer. In addition, the interviewer could sometimes detect if the individual was providing wholly spurious data for whatever reason, or if the interviewee was incapable of even understanding the questions. In addition, the responses were recorded by the interviewer, theoretically increasing the chance for accuracy in reporting the number of items used by duration, the interviewee's occupation and his/her reasons for coming to the library. Dauphin County's data collector observed that the interview technique "netted the most reliable information" because the interviewer retained "control of the interpretation of the survey."

Compared to the questionnaire, the interview method relied more heavily on the data collector. Although this has its advantages as observed above, some disadvantages also arise. Most conspicuous was, ironically, the lack of proper completion of the form by the data collectors, e.g., recording the number of items used by duration of use and type of materials used. Data collectors sometimes placed an "X" or checkmark in spaces which should have recorded the number of items used. This emphasizes the need for training and close supervision of individuals when the interview technique is being used. One data collector suggested that the use of volunteers in this type of work is inadvisable, and that paid staff would be more reliable. Overall, the results obtained from the interviews did not vary substantially from those of the questionnaire, but the interview method relies more heavily than questionnaires on human performance.

Unobtrusive Observation -- The smallest number of usable cases was obtained using unobtrusive observation. This was probably due to two factors: the time required to conduct an unobtrusive observation (up to 30 minutes for a single patron), and the fact that data collectors were instructed that this technique was a low priority item when compared to questionnaires, interviews and counts of materials on tables, if they ran short of time.

Unobtrusive observation is the most labor-intensive of all the data collection methods. The data collector must maintain close watch of the patron, count the number of materials used, try to determine the type of material, measure the duration of use, and estimate the age of the individual. Similarly, there are at least two main assumptions that underlie unobtrusive observation: that the observers are able to make accurate assessment of the various factors on which data are sought, and that the observers remain unobtrusive and hence do not affect patron behavior.

The distinct advantage of unobtrusive observation is that the information gained depends solely on an objective observer, and that the patron will not alter his/her responses based on the expectations of an interviewer, or even more general societal expectations concerning use of the library.

There are many limitations to the technique as used in this study. Generally, much less data were collected. We were unable to determine the reason for the patron's visit to the library, the level of formal education completed, his/her occupation, whether the individual has a library card, or how many items the patron was checking out. In addition, the observer was unable to learn the total duration of in-house use but only the duration of the observation period (arbitrarily limited to 30 minutes), and the observer was unable to determine how long each particular type of material was used. In addition, the observer was instructed not to follow the patron to other parts of the library. Given the limitations of the data collected, the relatively small number of patrons observed, the time spent per patron, and the need to train observers, it is reasonable to conclude that this technique is the most costly and least rewarding of the methods used.

Count of Materials on Tables -- The count of materials on tables is the most common technique for determining in-house use, because of its recommendation by Zweizig and Rodger in their Output Measures for Public Libraries (1982). The technique requires no direct contact with patrons. This has both benefits and disadvantages. One benefit is that the count of materials does not depend on the memory or honesty of a patron's response, or on the patron's ability to read questions properly and fill out a form. In addition it requires little or no skills (interpretive or otherwise) beyond the ability to count items on surfaces. It is also an efficient technique in that it can generally be accomplished by low-paid staff such as pages and requires little training. None of the libraries in the present study reported significant problems with this technique, but it is greatly limited as to the information gained. Only the number of items left on tables and the types of material found are obtained. There is no information about the patron who used the item, the duration of use, or the number of items used by a given patron. Indeed, one must assume that all materials found on the tables were in fact used by patrons and not used more than once. This technique is therefore not directly comparable to the other three especially to the interview and questionnaire.

The main shortcoming of the technique is that it underrepresents the number of materials used in the library, for at least three reasons. In the first place, items used at a table are often reshelved and are consequently not counted; one data collector specifically noted that despite clearly posted signs to the contrary, patrons reshelved library materials. In the second place, an item (e.g., a reference book) may have been used by more than one person, but it would be counted only once. In addition, materials examined at the shelves and returned to their proper place are not recorded by this method. Results from the study indicate that this underrepresentation is significant, and the technique must therefore be considered a conservative indicator of actual in-house use. It must be noted, as well, that this difference disappears when we measure only long-term use of library materials. In-house use ratios that include only materials used by the patron for "a longer period of time" are smaller than the table count ratios. If libraries are concerned only with materials consulted for longer periods and are willing to assume that books left on tables were used for more than a few minutes, then table count does not appear to underestimate this use. However, reaching the conclusion that long-term use is the only type of use that should be measured involves several questionable assumptions that are discussed in Chapter 3.

The technique of placing red dots on library materials found on tables, to determine the degree to which the same materials are used more than once, experienced little problems in practice. No negative observations were made by the data collectors concerning the technique itself. It therefore seems that the amount of training and time required are not burdensome. However, it is not comparable to the other data collection methods, because wholly different data are being gathered. Even so, the technique had only limited application in supporting or rejecting the 80/20 rule. The limited time in which the method was used severely restricted the possibility that the item would be reused; the chance that an item used on one survey day in one month would be reused on one of the other five survey days was relatively small. Add to that the fact that the number of items reused was counted only on the sixth survey day, at the request of the data collectors to reduce the time required to conduct this part of the study. The result was to ignore the number of items that were reused during the first five survey days, and consequently reduce the size of the ratio of all materials reused.

Conclusions Concerning the Best Method -- A central purpose of the Coalition study was to develop and test various methods of collecting data on the use of materials in the library. It is likely that the easiest technique is the count of materials used on tables because present, low-paid staff can be used, and minimal skills and training are required. However, this technique under-estimates the number of materials used in the library and provides no information about the users themselves. The interviews, on the other hand, provide considerable information about library users and increase the chances of getting a more nearly complete count of the number of materials used. Unfortunately, it is an expensive method requiring training and supervision of interviewers and considerable time per patron. Unobtrusive observation is also expensive, very time consuming, requires training, and provides only moderately more information than the count of materials on tables. If only one technique is possible, the questionnaire offers the greatest potential. It yields a reasonably complete assessment of the number and type of materials used in the library, it requires little time, money or training on the part of staff, and can provide considerable information about patrons and their use of the library.

If the time and money available permit the use of two measures of in-house use, the questionnaire and interview are clearly superior to counts of materials left on tables and to unobtrusive observation. As important as the choice of method is its use over at least one day a month, picked at random, for at least six and preferably twelve months a year.

Section 5. Conclusions and Suggestions for Further Research

Conclusions -- The present study has attempted to answer some basic questions concerning the in-house use of library materials and the methods that could best measure this use. The results of the study indicate that it is possible to conduct research in this area in several libraries or within one library. The need to collect this type of information is manifest when one realizes that not only do librarians want to know how their libraries are used that they can better serve the public, but also because public libraries have increased accountability. They need to be able to report accurately on the use of their library by the public. In the case of this study, the results are positive, in that they can most likely increase the estimate of in-house use.

The primary finding of the study is that public libraries are probably underrepresenting their in-house use by a significant amount when they simply count materials left on tables. The results indicate that although many libraries report in-house use ratios of 0.5 (or less) to 1, the actual ratio may be close to 1 to 1 or even greater. The lower ratios are most likely due to counting materials found on tables during specified data collection periods. The effect of this method is to miss items that were reshelved, used more than once while on the tables, or used by readers at the shelves and never brought to the tables. Unfortunately, this is the method recommended by ALA in its Output Measures for Public Libraries. The ubiquity of the table count method should not, however, deter libraries from finding new ways to measure more accurately the items used in the library. To this end, the use of a short questionnaire is an adequate remedy. Although the use of a questionnaire requires somewhat more effort, the variety and amount of data collected are compensating benefits. It should be kept in mind that this study was not able to confirm which of the data collection methods, if any, produced the correct estimate of in-house use. It is clear, however, from the limitations of the count of materials on tables that this method underrepresents in-house use; the data confirm this. It is possible, at least in theory, that the questionnaire overrepresented in-house use. Respondents might have felt the need to exaggerate the number of materials used. But it is hard to surmise why this would occur, since the questionnaires were completed anonymously. In the interviews, when patrons might be expected even more to want to impress someone, the results in fact were lower counts of in-house use than in the case of the questionnaires.

Not only are the numbers of materials used in the library considerable, but the number of such users comprise approximately half of all adult patrons. The users of materials in the library are not generally different from other library patrons, in that they are better educated than the general population, and are most often either students or professional people. Heaviest use of materials in libraries is found in the larger public libraries, probably because of their larger informational and research collection; heavier uses are also found among main libraries in comparison to branches, probably for the same reason.

As one might suspect, using materials in the library often consisted of searches for informational and nonfiction materials in contrast to fiction. Generally, a disproportionately large number of in-house users were males, and they tended to be heavier users of nonfiction than were females. Significant browsing activity was found especially in the fiction areas. Although the average library patron was in the library for less than a half-hour, in-house users averaged between 30 minutes and 2 hours. On average, an in-house user consulted four items.

The ability to predict in-house use by other variables is limited. Although there was some relationship between in-house use and such items as circulation, FTE staff, size of acquisitions budget, the number of reference questions asked, and visitor count, the present evidence suggests that in-house use be measured directly rather than using other variables to predict it.

The data collected for this study suggest that in-house use of library materials is a complex phenomenon that is not easily measured or predicted. One important aspect is the difficulty and adequacy of definition. In the table count, for example, the definition can be made quite clear--i.e., an item whose location requires it to be reshelved. But such a definition, as was seen in the analysis of methodologies, places serious limitations on identifying materials that were used more than once while off the shelf, or materials that were reshelved. Further, the mere appearance of an item on a table does not mean that the information sought by the patron was, in fact, found. The term "use" in this sense merely implies the physical movement of an item. When questionnaires and interviews are involved, the term "use" takes on different significance. In the table count method, the definition of "use" can be easily applied by simply seeing if an item needs to be reshelved, "use" for the questionnaires and interviews requires interpretation on the part of the patron. Especially in the questionnaire where there is no opportunity to clarify with the respondent what "use" means (beyond what is written on the form), one can not be sure that each patron is applying "use" in the same way. Underlying this definitional difficulty is the qualitative aspect of in-house use. The question of "What is use?", is followed by "Are some uses more valuable than others?". Should libraries be interested in only long-term use more than short-term use, or use for educational purposes versus recreational purposes? Is use by adults more important than use by children? Should we be more concerned with uses of items that produce the desired result for the patron? Although the task of defining in-house use may be difficult and possesses inherent ambiguities, it is important that the clearest possible definition be established before attempting to measure "use". In this way, the librarian is aware of the limitations and strengths of the measure in question.

Recommendations for Further Research -- The present study raised several issues that would be fruitful for further research. One area of special significance would be a study specifically designed to collect data on the in-house use of library materials by children. Although there was a modest attempt to collect such data in the present study, the priority was set for adult use. A future research project could prepare data collection instruments specifically designed for children and assess the reliability and validity of these instruments. Subsequent experience with the instruments could measure in-house use by children. The present study suggests that unobtrusive observation may be an effective method because it does not rely on children answering questions themselves either orally or in writing.

Another area of study concerns the use of audiovisual materials in the library. Although the count of materials on tables produced some information on this subject, neither the questionnaires nor interviews were designed to do so for fear of making the procedure unreasonably lengthy. A future study could focus on measuring the percent of A-V materials used in the library, the type of materials used, who uses them, and the ratio of use in the library compared to the number of materials checked out.

There is also a need to measure the qualitative aspects of in-house use. The present study, as have all others, concerned solely the number of items and the types of materials used. No attempt was made to determine if the material used actually served the purpose of the patron. It may well be, for example, that a patron used several items as a result of not being able to find the information sought. In this sense, large numbers of materials used inside the library may indicate a negative rather than a positive measure. For this reason, it is important to explore the adequacy of the materials used in the library.

Similarly, it would desirable to identify variables that are causally related to in-house use. The difficulty of predicting in-house use may stem from the large number of factors that contribute to the variance. Factors such as the physical facility (parking facilities, security, hours open, number of work surfaces, lighting, etc.), geographic accessibility, quality of collection, hospitable character or competence of the staff, number of in-library programs, level of education of the community, and proportion of school-aged children in the community, are all possible factors affecting the magnitude of in-house use in a library. Studies measuring the contribution of all or some of these variables to in-house use would provide valuable information to libraries interested in not only measuring, but promoting in-library use.

The problems with the use of computers for data collection in the present study emphasize the need to assess whether computers can successfully be employed to survey public library patrons. Patrons may have fears concerning the privacy of their reading habits, or they may react with excitement. Different age groups might respond differently. The Library Research Center conducted a study using microcomputers in 60 Illinois libraries; most reported that patrons were glad to use micros and had no trouble following directions. However, there were problems finding library staff with a basic competence to operate the computer, and this may have also been a problem in the Coalition study. If, in fact, there is little resistance to computer conducted surveys, public libraries might have a new tool for regular evaluation of their services, collection and staff.

The present study indicated that the unemployed use materials in the library and ask help of library staff to a disproportionate degree. However, it is unclear exactly why and how the library is used and which of the unemployed are involved; it may be that the most common unemployed users are middle-class and better educated. We assume that the unemployed use the library to find jobs or to better their skills; they may, however, be using the library for diversion and recreation.

This also suggests that library use should be studied with some attention to the less educated. Although it is common to hear that the public library serves those who are well educated, the present study revealed that at least one in five patrons have a high school education or less. It would be worthwhile exploring how these individuals use materials in the library, and understanding what they require of library services and materials.

The pattern suggested by the present study is that the larger the size of the public library, the greater the ratio of in-house use to recorded circulation. However, the small sample size does not permit us to generalize concerning the population of public libraries as a whole. It would be worthwhile to replicate this study with a random sample of libraries to determine if the pattern of in-house use found in this study holds up under further investigation.

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APPENDIX A

SUMMARY AND ANALYSIS TABLES FOR THE ADULT QUESTIONNAIRES

A-1: Summary of Adult Questionnaire Responses

A-2: Age, Sex, and Reason for Coming by Occupation

A-3: Age, Sex, and Occupation by Reason for Coming

A-4: Average Number of Materials Used In-House by Type of Materials and Duration of Use for Each Library and All Libraries Combined

A-5: Summary of Data Collected for Selected Variables

A-6: Ratios of In-House Use for Selected Variables

A-7: Chi-Squares for Number of Items Used by Type of Material, Duration of Use and Sex

A-8: Chi-Squares for Sex of In-House Users by Level of Education, Occupation, and Reason for Coming

A-9: One-Way Analysis of Variance: In-House Use by Age, Education, and Occupation for All In-House Users and Those Who Used Materials "For a Longer Period of Time"

A-10: t-tests: Number of Items Used In-House by Gender for All In-House Users and Those Who Used Materials "For a Longer Period of Time"

A-11: t-test: Number of Items Checked Out by Gender

A-12: Combined Correlations for Rockingham County, Dauphin County, and Minneapolis

Appendix A-1

SUMMARY OF ADULT QUESTIONNAIRE RESPONSES*

			Dallas Public Library						Minneapolis Public Library				
	All Libraries	Arlington Heights	Dallas (Central)	King Branch	Oaklawn Branch	Audelia Branch	Dauphin County	Iowa City	Minneapolis (Central)	Northeast Branch	Franklin Branch	Washburn Branch	Rockingham County
(Q.1) Did you use any books, magazines or newspapers on this visit? (Number of responses/% of total)													
yes	4316/63%	488/65%	110/64%	29/43%	194/58%	148/59%	342/56%	675/60%	1459/70%	201/63%	208/62%	282/58%	175/52%
no	2540/37%	261/35%	61/36%	39/57%	141/42%	103/41%	266/44%	440/40%	621/30%	118/37%	129/38%	200/42%	160/48%
(Q.2) How many books, magazines, or newspapers were used for (1) "just a minute" or (2) "for a longer period of time"? (No. of items/% of total)													
Fiction/Novels													
(1)	4040/4.3	439/4.3	99/4.1	16/2.3	176/4.3	126/3.7	237/3.9	516/3.9	1389/4.2	261/5.1	175/4.9	446/5.2	159/3.8
(2)	1393/2.8	96/3.1	57/2.8	36/4.0	71/2.2	43/3.1	96/2.9	217/2.7	369/2.5	59/2.6	86/2.8	119/3.1	141/4.4
Nonfiction													
(1)	4694/3.8	585/4.3	75/3.0	7/1.8	145/3.1	150/3.6	300/3.2	474/3.1	2081/4.0	209/3.3	155/4.2	401/4.2	111/3.1
(2)	2227/2.8	110/3.4	58/2.8	19/1.9	116/2.5	75/2.7	157/3.5	318/2.5	928/2.9	59/1.7	96/2.8	154/2.5	78/2.8
Magazines													
(1)	2317/3.0	164/3.1	70/2.8	5/1.2	107/2.7	72/2.7	248/3.5	483/3.0	671/3.2	108/3.2	104/2.7	168/2.8	115/3.2
(2)	1620/2.7	57/2.6	65/2.7	11/2.8	82/3.2	52/2.6	122/2.4	294/2.3	563/3.4	79/2.5	111/2.5	102/2.2	79/2.5
Newspapers													
(1)	750/1.9	56/1.9	19/1.3	4/1.0	54/2.8	12/1.3	40/1.5	206/1.9	246/2.5	15/1.5	37/1.4	22/1.2	39/1.9
(2)	693/2.2	14/1.6	9/1.5	4/1.3	24/1.7	13/1.4	49/1.9	166/2.2	288/2.9	35/1.8	50/1.9	21/1.6	16/1.5
(Q.3) How many are you taking out? (No. of items/% of total)													
	14252/3.8	1637/3.7	361/4.4	76/3.8	535/3.5	698/4.4	1212/3.6	1543/2.2	4419/3.4	811/4.3	597/4.3	1587/5.0	765/5.3
(Q.4) Do you have a library card? (No. of responses/% of total)													
yes	5905/86%	666/89%	134/78%	46/68%	257/77%	224/89%	529/87%	973/87%	1834/88%	286/90%	227/67%	451/94%	273/82%
no	951/14%	83/11%	37/22%	22/31%	78/23%	27/11%	79/13%	141/23%	246/12%	33/10%	110/33%	31/6%	62/18%

Appendix A-1, p. 2.

	All Libraries	Arlington Heights	Dallas Public Library				Dauphin County	Iowa City	Minneapolis Public Library				Rockingham County
			Dallas (Central)	King Branch	Oaklawn Branch	Audelia Branch			Minneapolis (Central)	Northeast Branch	Franklin Branch	Washburn Branch	
(Q.5) How much time did you spend in the library?(a) (No. of responses/% of total)													
(1)	3670/54%	412/55%	88/52%	33/52%	185/57%	150/60%	376/62%	567/51%	968/47%	194/62%	203/62%	296/62%	197/60%
(2)	2697/40%	297/40%	64/38%	14/22%	120/37%	89/36%	212/35%	472/43%	926/45%	111/35%	109/33%	164/34%	116/35%
(3)	306/4%	31/4%	15/9%	6/10%	15/5%	7/3%	15/2%	52/5%	115/6%	8/2%	13/4%	13/3%	13/4%
(4)	92/1%	7/1%	3/2%	10/16%	5/2%	2/1%	2/**	15/1%	37/2%	1/**	4/1%	3/1%	3/1%
(Q.6) Why did you come to the library?(b) (No. of responses/% of total)													
(1)	1205/19%	158/21%	26/16%	7/12%	66/21%	55/24%	124/21%	109/10%	333/18%	68/22%	61/20%	147/33%	50/16%
(2)	297/5%	32/4%	5/3%	2/4%	9/3%	26/11%	59/10%	53/5%	27/2%	14/4%	10/3%	36/8%	24/8%
(3)	115/2%	36/5%	6/4%	9/16%	5/2%	5/2%	6/1%	13/1%	24/1%	1/**	1/**	2/**	7/2%
(4)	563/9%	77/10%	10/6%	5/9%	14/4%	18/8%	68/12%	95/9%	158/8%	36/12%	11/4%	30/7%	7/2%
(5)	168/3%	9/1%	7/4%	2/4%	13/4%	4/2%	13/2%	20/2%	61/3%	12/4%	13/4%	6/1%	8/3%
(6)	100/2%	2/**	5/3%	2/4%	3/1%	1/**	6/1%	24/2%	26/1%	6/2%	21/7%	2/**	1/**
(7)	58/1%	5/1%	--	2/4%	1/**	--	5/1%	14/1%	21/1%	3/1%	2/1%	2/**	12/4%
(8)	2268/36%	270/36%	57/35%	12/21%	112/35%	80/35%	180/31%	351/33%	774/42%	111/36%	78/26%	161/36%	80/26%
(9)	1245/20%	77/10%	41/25%	8/14%	69/22%	36/16%	77/13%	351/33%	391/21%	48/16%	94/31%	36/8%	52/17%
(10)	356/6%	79/11%	6/4%	7/12%	27/8%	3/1%	42/7%	61/6%	50/3%	9/3%	14/5%	21/5%	37/12%
(Q.7) Are you male or female? (No. of responses/% of total)													
male	3107/48%	330.44%	102/61%	20/32%	170/54%	78/34%	213/37%	501/47%	1055/56%	152/49%	181/58%	186/42%	114/36%
female	3313/52%	416/56%	65/39%	42/68%	148/46%	152/66%	367/63%	559/53%	817/44%	158/51%	188/42%	256/58%	198/64%
(Q.8) In which age bracket do you belong? (No. of responses/% of total)													
15-19	569/9%	81/11%	3/2%	12/20%	13/4%	20/9%	70/12%	102/10%	112/6%	48/16%	23/7%	32/7%	52/17%
20-39	3679/58%	345/46%	118/71%	34/57%	194/61%	104/45%	273/47%	789/74%	1129/61%	155/50%	187/60%	208/47%	139/45%
40-59	1398/22%	221/30%	36/22%	11/18%	70/22%	70/31%	145/25%	116/11%	400/22%	65/21%	75/24%	116/26%	74/24%
60+	757/12%	98/13%	10/6%	3/5%	41/23%	35/15%	96/16%	52/5%	221/22%	42/14%	27/9%	88/20%	44/14%

Appendix A-1, p. 3.

			Dallas Public Library						Minneapolis Public Library				
	All Libraries	Arlington Heights	Dallas (Central)	King Branch	Oaklawn Branch	Audelia Branch	Dauphin County	Iowa City	Minneapolis (Central)	Northeast Branch	Franklin Branch	Washburn Branch	Rockingham County
(Q.9) What is your occupation?(c) (No. of responses/% of total)													
(1)	1934/30%	247/33%	68/41%	10/18%	117/37%	69/30%	189/32%	270/26%	623/34%	70/23%	42/14%	157/26%	71/23%
(2)	269/5%	57/8%	13/8%	2/4%	20/6%	12/5%	14/2%	37/4%	82/4%	13/4%	11/4%	22/5%	13/4%
(3)	654/10%	49/7%	14/8%	9/16%	48/15%	7/3%	44/8%	82/8%	219/12%	51/17%	53/17%	29/7%	46/15%
(4)	613/10%	51/7%	25/15%	2/4%	42/13%	21/9%	60/10%	74/7%	218/12%	33/11%	20/6%	35/8%	31/10%
(5)	1334/21%	132/18%	19/11%	16/28%	28/9%	28/12%	97/15%	428/41%	361/19%	66/22%	58/19%	46/10%	54/18%
(6)	615/10%	132/18%	13/8%	9/16%	18/6%	60/26%	98/17%	66/6%	56/3%	14/5%	25/8%	73/17%	49/16%
(7)	581/8%	64/9%	7/4%	2/4%	28/9%	27/12%	75/13%	35/3%	172/9%	39/13%	29/9%	70/16%	33/11%
(8)	334/5%	13/2%	8/5%	6/10%	13/4%	4/2%	14/2%	54/5%	123/7%	13/4%	70/23%	6/1%	10/3%
(9)	16/**	--	--	1/2%	1/**	1/**	--	3/**	5/**	1/**	1/**	2/**	1/**
(Q.10) How far have you gone in school?(d) (No of responses/% of total)													
(1)	1550/24%	156/21%	30/18%	32/57%	72/23%	41/18%	226/39%	140/13%	347/19%	126/43%	163/52%	83/19%	131/45%
(2)	1079/17%	113/15%	32/19%	11/20%	58/18%	35/18%	103/18%	155/15%	350/19%	51/17%	58/19%	59/13%	53/17%
(3)	840/13%	74/10%	17/10%	2/4%	43/14%	25/11%	44/8%	221/21%	269/14%	29/10%	30/10%	53/12%	33/11%
(4)	1241/20%	183/24%	40/24%	5/9%	65/21%	70/31%	72/12%	198/19%	391/21%	42/14%	24/8%	102/23%	49/16%
(5)	721/12%	84/11%	22/13%	3/5%	35/11%	34/15%	63/11%	131/12%	232/12%	23/8%	21/7%	53/14%	20/6%
(6)	924/14%	136/18%	27/16%	3/5%	42/13%	24/10%	67/12%	217/20%	263/14%	25/8%	15/5%	82/19%	20/6%

* Some questions have been abbreviated.

** Less than 0.5%

(a) 1. Less than 30 minutes
2. 1/2 to 2 hours
3. More than 2 but less than 4 hours
4. 4 or more hours

(b) 1. Return materials
2. Bring a child
3. Attend a program
4. Do school assignment
5. Get information from a librarian
6. Meet someone
7. Attend a meeting
8. Check out materials
9. Use materials in the library
10. Other

(c) 1. Professional
2. Manager
3. skilled or unskilled worker
4. Clerical or sales worker
5. Student
6. Homemaker
7. Retired
8. Unemployed
9. Other

(d) 1. Grades 1-12
2. 1-2 years college
3. 2 or more years college; no degree
4. Bachelor's degree
5. Graduate work
6. Master's or Ph.D.

Appendix A-2

AGE, SEX AND REASON FOR COMING BY OCCUPATION

	Professional	Manager	Skilled or Unskilled Worker	Clerical or Sales	Student	Home-maker	Retired	Unem-ployed	Other
AGE									
15-19	4/*	5/2%	20/3%	26/4%	492/37%	4/1%	0	13/4%	1/6%
20-39	1248/65%	189/64%	445/68%	399/66%	796/60%	322/53%	8/1%	228/68%	12/75%
40-59	584/30%	87/29%	153/24%	151/25%	34/3%	209/34%	68/12%	85/26%	2/12%
60+	90/5%	14/5%	32/5%	33/5%	7/*	73/12%	490/87%	7/2%	1/6%
Total	1926/100%	295/100%	650/100%	609/100%	1329/100%	608/100%	566/100%	333/100%	16/100%
SEX									
Male	1037/54%	199/67%	420/65%	233/36%	609/46%	11/2%	316/55%	233/70%	12/75%
Female	887/46%	97/33%	230/35%	380/64%	718/54%	601/98%	258/48%	98/30%	4/25%
Total	1924/100%	296/100%	650/100%	612/100%	1327/100%	612/100%	574/100%	331/100%	16/100%
REASONS FOR COMING									
To return materials	421/22%	57/20%	110/17%	116/19%	133/10%	158/26%	142/25%	44/14%	4/25%
To bring child to the library	107/6%	14/5%	21/3%	23/4%	16/1%	99/16%	4/1%	10/3%	0
To attend a library program	31/2%	3/1%	11/2%	8/1%	11/1%	30/5%	14/2%	4/1%	1/6%
To do a school assignment	51/3%	7/2%	15/2%	35/6%	425/32%	22/4%	0	6/2%	0
To get information (not a school assignment)	43/2%	15/5%	26/4%	17/3%	20/2%	12/2%	18/3%	12/4%	1/6%
To meet someone	21/1%	0	15/2%	9/2%	31/2%	3/*	6/1%	13/4%	0
To attend a meeting	14/1%	2/1%	9/1%	6/1%	9/1%	8/1%	9/2%	1/*	0
To check out materials	761/40%	108/37%	238/37%	244/40%	395/30%	211/34%	207/36%	83/25%	6/38%
To use materials in the library	362/19%	67/23%	155/24%	117/19%	226/17%	40/6%	133/23%	129/39%	4/25%
Other	109/6%	20/7%	44/7%	34/6%	54/4%	29/5%	37/6%	25/8%	0
Total	1920/ 100%	293/100%	644/100%	609/100%	1320/100%	612/100%	570/100%	327/100%	16/100%

* less than 0.5%

Appendix A-3

AGE, SEX, AND OCCUPATION BY REASON FOR COMING

	Return materials	Bring child	Attend library program	Do school assignment	Get information	Attend meeting	Check out materials	Use Materials in Library	Other
AGE									
15-19	58/5%	1/*	3/3%	235/42%	7/4%	4/7%	146/6%	58/5%	30/8%
20-39	596/50%	214/73%	66/58%	286/51%	109/66%	32/56%	1332/59%	761/62%	199/56%
40-59	340/28%	72/25%	28/25%	37/9%	28/17%	10/18%	496/22%	276/22%	63/18%
60+	199/17%	6/2%	16/14%	3/*	21/13%	11/19%	282/12%	142/12%	63/18%
Total	1193/100%	293/100%	113/100%	563/100%	165/100%	57/100%	2256/100%	1237/100%	355/100%
SEX									
Male	490/41%	68/23%	38/33%	222/39%	94/57%	18/31%	997/44%	883/72%	189/53%
Female	707/59%	226/77%	77/67%	341/61%	72/43%	40/69%	1260/56%	352/28%	165/47%
Total	1197/100%	294/100%	115/100%	563/100%	166/100%	58/100%	2257/100%	1235/100%	354/100%
OCCUPATION									
Professional	421/36%	107/36%	31/27%	51/9%	43/26%	14/24%	761/34%	362/29%	109/31%
Manager	57/5%	14/5%	3/3%	7/1%	15/9%	2/3%	108/5%	67/5%	20/6%
Skilled or unskilled	110/9%	21/7%	11/10%	15/3%	26/16%	9/16%	238/11%	155/13%	44/12%
Clerical or sales	116/10%	23/8%	8/7%	35/6%	17/10%	6/10%	244/11%	117/10%	34/10%
Student	133/11%	16/5%	11/10%	425/76%	20/12%	9/16%	395/18%	226/18%	54/15%
Homemaker	158/13%	99/34%	30/26%	22/4%	12/7%	8/14%	211/9%	40/3%	29/8%
Retired	142/12%	4/1%	14/12%	0	18/11%	9/16%	207/9%	133/11%	37/10%
Unemployed	44/4%	10/3%	4/4%	6/1%	12/7%	1/2%	83/4%	129/10%	27/7%
Other	4/*	0	1/1%	0	1/1%	0	6/*	4/*	0
Total	1185/100%	294/100%	113/100%	561/100%	164/100%	58/100%	2253/100%	1233/100%	353/100%

* less than 0.5%

Appendix A-4

AVERAGE NUMBER OF MATERIALS USED IN-HOUSE BY TYPE OF MATERIALS AND DURATION OF USE FOR EACH LIBRARY AND ALL LIBRARIES COMBINED

	Mean	Median	Number of Users/ % of All Respondents*	Number of Items Used
ALL LIBRARIES				
Fiction for a minute	4.3	3.0	941/13.7%	4,040
Fiction for longer	2.8	2.0	496/7.2%	1,393
Nonfiction for a minute	3.8	3.0	1246/18.2%	4,694
Nonfiction for longer	2.8	2.0	805/11.7%	2,227
Magazines for a minute	3.0	2.0	761/11.1%	2,317
Magazines for longer	2.7	2.0	596/8.7%	1,620
Newspapers for a minute	1.9	1.0	388/5.6%	750
Newspapers for longer	2.2	1.0	317/4.6%	693
Total responses = 6,856	5.7	4.0	3086/100%	17,734
ARLINGTON HEIGHTS				
Fiction for a minute	4.4	3.0	101/13.5%	439
Fiction for longer	3.1	3.0	31/4.1%	96
Nonfiction for a minute	4.3	3.0	136/18.2%	585
Nonfiction for longer	3.4	2.0	32/4.3%	110
Magazines for a minute	3.1	2.0	53/7.1%	164
Magazines for longer	2.6	2.0	22/2.9%	57
Newspapers for a minute	1.8	1.0	32/4.3%	56
Newspapers for longer	1.6	1.0	9/1.2%	14
Total	5.2	3.5	292/100%	1521
DALLAS (SYSTEM)				
Fiction for a minute	3.9	3.0	107/12.9%	418
Fiction for longer	2.7	2.0	77/9.2%	210
Nonfiction for a minute	3.2	3.0	119/14.3%	378
Nonfiction for longer	2.5	2.0	108/13.0%	273
Magazines for a minute	2.7	2.0	96/11.5%	256
Magazines for longer	2.8	2.0	76/9.1%	213
Newspapers for a minute	1.9	1.0	47/5.6%	89
Newspapers for longer	1.6	1.0	34/4.1%	54
Total	6.4	4.0	347/100%	1891
DALLAS CENTRAL				
Fiction for a minute	4.1	2.5	24/14.0%	99
Fiction for longer	2.8	2.5	20/11.7%	57
Nonfiction for a minute	3.0	2.0	25/14.6%	75
Nonfiction for longer	2.8	3.0	21/12.3%	58
Magazines for a minute	2.8	2.0	25/14.6%	70
Magazines for longer	2.7	2.0	24/14.0%	65
Newspapers for a minute	1.3	1.0	15/8.8%	19
Newspapers for longer	1.5	1.0	6/3.5%	9
Total	6.0	5.0	75/100%	452

* Total does not equal sum of column because a reader may use items from more than one category.

Appendix A-4, p. 2

	Mean	Median	Number of Users/ % of All Respondents*	Number of Items Used
KING BRANCH (DALLAS)				
Fiction for a minute	2.2	2.0	7/10.3%	16
Fiction for longer	4.0	4.0	9/13.2%	36
Nonfiction for a minute	1.8	1.5	4/5.9%	7
Nonfiction for longer	1.9	2.0	10/14.7%	19
Magazines for a minute	1.2	1.0	4/5.8%	5
Magazines for longer	2.8	3.0	4/5.8%	11
Newspapers for a minute	1.0	1.0	4/5.8%	4
Newspapers for longer	1.3	1.0	3/4.4%	4
Total	4.2	2.5	24/100%	102
OAKLAWN BRANCH (DALLAS)				
Fiction for a minute	4.3	3.0	42/12.5%	177
Fiction for longer	2.2	2.0	34/10.1%	74
Nonfiction for a minute	3.1	3.0	48/14.3%	146
Nonfiction for longer	2.5	2.0	49/14.6%	121
Magazines for a minute	2.7	2.0	41/12.2%	109
Magazines for longer	3.2	2.0	29/8.6%	85
Newspapers for a minute	2.8	1.0	19/5.7%	54
Newspapers for longer	1.7	1.0	16/4.8%	28
Total	5.6	4.0	138/100%	794
AUDELIA BRANCH (DALLAS)				
Fiction for a minute	3.7	3.0	34/13.5%	126
Fiction for longer	3.1	2.5	14/5.6%	43
Nonfiction for a minute	3.6	3.0	42/16.7%	150
Nonfiction for longer	2.7	2.0	28/11.2%	75
Magazines for a minute	2.7	2.0	27/10.8%	72
Magazines for longer	2.6	2.0	20/8.0%	52
Newspapers for a minute	1.3	1.0	9/3.6%	12
Newspapers for longer	1.4	1.0	9/3.6%	13
Total	4.9	4.0	110/100%	543
DAUPHIN COUNTY				
Fiction for a minute	3.9	3.0	61/10.0%	237
Fiction for longer	2.9	2.0	33/5.4%	96
Nonfiction for a minute	3.2	3.0	93/15.3%	300
Nonfiction for longer	3.5	2.0	45/7.4%	157
Magazines for a minute	3.5	2.0	71/11.7%	248
Magazines for longer	2.4	2.0	50/8.2%	122
Newspapers for a minute	1.5	1.0	26/4.3%	40
Newspapers for longer	1.9	2.0	26/4.3%	49
Total	5.1	3.0	244/100%	1249

	Mean	Median	Number of Users/ % of All Respondents*	Number of Items Used
IOWA CITY				
Fiction for a minute	3.9	3.0	131/1.8%	516
Fiction for longer	2.7	2.0	81/7.3%	217
Nonfiction for a minute	3.1	2.0	151/13.6%	474
Nonfiction for longer	2.5	2.0	127/11.4%	318
Magazines for a minute	3.0	2.0	161/14.4%	483
Magazines for longer	2.3	2.0	126/11.3%	294
Newspapers for a minute	1.9	1.0	107/9.6%	206
Newspapers for longer	2.2	2.0	77/6.9%	166
Total	5.2	4.0	518/100%	2674
MINNEAPOLIS (SYSTEM)				
Fiction for a minute	4.6	3.0	499/15.5%	2,271
Fiction for longer	2.6	2.0	242/7.5%	633
Nonfiction for a minute	4.0	3.0	711/22.1%	2,846
Nonfiction for longer	2.8	2.0	465/14.4%	1,291
Magazines for a minute	3.0	2.0	344/10.7%	1,051
Magazines for longer	3.0	2.0	290/9.0%	855
Newspapers for a minute	2.1	1.0	155/4.8%	320
Newspapers for longer	2.5	1.5	160/5.0%	394
Total	6.0	4.0	1607/100%	9661
MINNEAPOLIS CENTRAL				
Fiction for a minute	4.3	3.0	327/15.7%	1,389
Fiction for longer	2.5	2.0	150/7.2%	369
Nonfiction for a minute	4.0	3.0	515/24.8%	2,081
Nonfiction for longer	2.9	2.0	335/16.1%	982
Magazines for a minute	3.2	2.0	210/10.1%	671
Magazines for longer	3.4	2.0	166/8.0%	563
Newspapers for a minute	2.5	2.0	99/4.8%	246
Newspapers for longer	2.8	2.0	101/4.8%	288
Total	6.0	4.0	1103/100%	6589
FRANKLIN BRANCH (MINNEAPOLIS)				
Fiction for a minute	4.9	3.0	36/10.7%	175
Fiction for longer	2.8	2.0	31/9.2%	86
Nonfiction for a minute	4.2	2.0	37/11.0%	155
Nonfiction for longer	2.8	2.0	34/10.1%	96
Magazines for a minute	2.7	2.0	39/11.6%	104
Magazines for longer	2.5	2.0	45/13.4%	111
Newspapers for a minute	1.4	1.0	26/7.7%	37
Newspapers for longer	1.8	1.0	27/8.0%	50
Total	6.3	4.0	130/100%	814

	Mean	Median	Number of Users/ % of All Respondents*	Number of Items Used
NORTHEAST BRANCH (MINNEAPOLIS)				
Fiction for a minute	5.1	4.0	51/16.8%	261
Fiction for longer	2.6	2.0	23/7.5%	59
Nonfiction for a minute	3.3	2.0	64/21.0%	209
Nonfiction for longer	1.7	2.0	34/11.1%	59
Magazines for a minute	3.2	2.0	34/11.2%	108
Magazines for longer	2.5	2.0	32/10.4%	79
Newspapers for a minute	1.5	1.5	10/3.2%	15
Newspapers for longer	1.8	2.0	19/6.0%	35
Total	5.5	4.0	148/100%	825
WASHBURN BRANCH (MINNEAPOLIS)				
Fiction for a minute	5.2	4.0	85/17.6%	446
Fiction for longer	3.1	2.0	38/7.9%	119
Nonfiction for a minute	4.2	3.0	95/19.7%	401
Nonfiction for longer	2.5	2.0	62/12.9%	154
Magazines for a minute	2.8	2.0	61/12.6%	168
Magazines for longer	2.2	2.0	47/9.8%	102
Newspapers for a minute	1.1	1.0	20/4.1%	22
Newspapers for longer	1.6	1.0	13/2.7%	21
Total	6.3	4.0	226/100%	1433
ROCKINGHAM COUNTY				
Fiction for a minute	3.8	3.5	42/12.5%	159
Fiction for longer	4.4	2.0	32/9.6%	141
Nonfiction for a minute	3.1	3.0	36/10.7%	111
Nonfiction for longer	2.8	3.0	28/8.3%	78
Magazines for a minute	3.2	2.0	36/10.7%	115
Magazines for longer	2.5	2.0	32/9.6%	79
Newspapers for a minute	1.9	2.0	21/6.3%	39
Newspapers for longer	1.5	1.0	11/3.3%	16
Total	5.8	4.0	127/100%	738

Appendix A-5

SUMMARY OF DATA COLLECTED FOR SELECTED VARIABLES

	CIRC	VC	FTE	REF Q	COUNT	Q
Arlington Heights	*	*	8	262	1412	495
	*	*	6	296	1051	395
	*	*	9.5	284	842	631
Dallas System	2410	3010	5	2651	*	452
	2495	3529	5	2744	*	*
	2186	2969	5	2315	*	*
Dauphin County	989	648	1.5	34	214	730
	818	629	1.5	27	88	517
	795	652	1	19	77	*
Iowa City	1965	*	2	235	1065	*
	1896	*	2	163	1131	1443
	1421	*	2	118	60	1231
Minneapolis System	3862	3455	56	1535	5929	3739
	5597	3701	55	1735	3875	2998
	4493	2889	58	1297	5294	2932
Rockingham County	378	485	2	77	226	315
	360	390	2	79	194	423
	335	182	3	19	105	134

* = data not provided

CIRC = total daily circulation reported by library for each questionnaire day

VC = total daily visitor count reported by library for each questionnaire day

FTE = total full-time equivalent of public service staff for each questionnaire day

REF Q = total number of non-directional reference questions by library for each questionnaire day (Some libraries do not separate reference questions by type.)

COUNT = total number of materials found on tables and other surfaces by library for each questionnaire day

Q = total number of materials used in the library based on reports by questionnaire respondents for each questionnaire day

Appendix A-6

RATIOS OF IN-HOUSE USE FOR SELECTED VARIABLES*

Visitor Count	In-House Use/ Visitor Count	Ratio to 1 Visitor	Mean Ratio Per Library
Dallas System	452/3010	.15	.15
Dauphin County	730/ 648	1.13	.98
	517/ 629	.82	
Minneapolis System	3739/3455	1.08	.97
	2998/3701	.81	
	2932/2889	1.01	
Rockingham County	315/ 485	.65	1.24
	423/ 390	2.32	
	134/ 182	.74	

FTE	In-House Use/ FTE	Ratio to 1 FTE	Mean Ratio Per Library
Arlington Heights	495/ 8.0	61.88	64.71
	395/ 6.0	65.83	
	631/ 9.5	66.42	
Dallas System	495/ 5.0	99.00	99.00
Dauphin County	730/ 1.5	486.97	415.67
	517/ 1.5	344.67	
Iowa City	1443/ 2.0	721.50	668.50
	1231/ 2.0	615.50	
Minneapolis System	3739/56.0	66.77	66.15
	2998/55.0	54.51	
	2932/38.0	77.16	
Rockingham County	315/ 2.0	157.50	137.89
	432/ 2.0	211.50	
	134/ 3.0	44.67	

* Values for all variables except in-house use are based on daily tally by library for entire day. In-house use is based on data obtained from the questionnaires.

Appendix A-6, p. 2

Number of Reference Questions	In-House Use/ No. of Reference Questions	Ratio to 1 Reference Question	Mean Ratio Per Library
Arlington Heights	495/ 262	1.89	1.81
	395/ 296	1.33	
	631/ 284	2.22	
Dauphin County	730/ 34	21.47	20.31
	517/ 27	19.15	
Iowa City	1443/ 163	8.85	9.64
	1231/ 118	10.43	
Minneapolis System	3739/1535	2.44	2.14
	2998/1735	1.73	
	2932/1297	2.26	
Rockingham County	315/ 77	4.09	5.50
	423/ 19	5.35	
	135/ 19	7.05	

Circulation	In-House Use/ Circulation	Ratio to 1 Circulation	Mean Ratio Per Library
Dallas System	452/2410	.19	.19
Dauphin County	730/ 989	.74	.69
	517/ 818	.63	
Iowa City	1443/1896	.76	.82
	1231/1421	.87	
Minneapolis System	3739/3862	.97	.72
	2998/5597	.54	
	2932/4493	.65	
Rockingham County	315/ 378	.83	.80
	423/ 360	1.18	
	134/ 335	.40	

Appendix A-7

CHI-SQUARES FOR NUMBER OF ITEMS USED BY TYPE OF MATERIAL, DURATION OF USE AND SEX

FICTION FOR A MINUTE

Number of Items Used	Male	Female	Total
1	80	83	163
2	74	101	175
3	60	102	162
4	32	61	93
5	36	57	93
6-10	34	99	133
11 or more	9	41	50
Total	325	544	869

X^2 = 27.71 df = 6 p = .0001

FICTION FOR A LONGER PERIOD

Number of Items Used	Male	Female	Total
1	74	80	154
2	66	53	119
3	34	35	69
4	16	22	38
5	10	17	27
6 or more	20	24	44
Total	220	231	451

X^2 = 4.53 df = 5 p = .48

NON-FICTION FOR A MINUTE

Number of Items Used	Male	Female	Total
1	160	112	272
2	148	112	260
3	105	105	210
4	50	67	117
5	42	64	106
6-10	67	84	151
11 or more	25	30	55
Total	597	574	1171

X^2 = 22.42 df = 6 p = .001

NON-FICTION FOR A LONGER PERIOD

Number of Items Used	Male	Female	Total
1	152	112	264
2	115	84	199
3	64	57	121
4	30	32	62
5	13	21	34
6-10	29	27	56
11 or more	4	9	13
Total	407	342	749

X^2 = 9.67 df = 6 p = .14

Appendix A-7, p. 2

MAGAZINES FOR A MINUTE

Number of Items Used	Male	Female	Total
1	127	92	219
2	131	80	211
3	67	29	96
4	41	17	58
5	28	27	55
6-10	29	17	46
11 or more	12	7	19
Total	435	269	704

$X^2 = 8.70$ df = 6 p = .19

MAGAZINES FOR A LONGER PERIOD

Number of Items Used	Male	Female	Total
1	109	62	171
2	119	55	174
3	73	28	101
4	31	11	42
5	13	10	23
6 or more	27	14	41
Total	372	180	552

$X^2 = 4.28$ df = 5 p = .51

NEWSPAPERS FOR A MINUTE

Number of Items Used	Male	Female	Total
1	143	62	205
2	72	29	101
3	22	4	26
4	7	3	10
5	7	4	11
6 or more	6	4	10
Total	257	106	363

$X^2 = 3.36$ df = 5 p = .64

NEWSPAPERS FOR A LONGER PERIOD

Number of Items Used	Male	Female	Total
1	112	39	151
2	67	9	76
3	21	11	32
4	6	5	11
5	6	8	14
6 or more	6	4	10
Total	218	76	294

$X^2 = 19.40$ df = 5 p = .002

Appendix A-8

CHI-SQUARES FOR SEX OF IN-HOUSE USERS BY LEVEL OF EDUCATION, OCCUPATION AND REASON FOR COMING TO THE LIBRARY

Chi-Square for Sex of In-House Users by Level of Education

	LEVEL OF EDUCATION						
SEX	Grades 1-12	1-2 years' college	2-4 years' college, no degree	BA	Graduate work	MA or PhD	Total
Male	459	341	277	405	246	385	2113
Female	466	354	253	371	205	219	1868
Total	925	695	530	776	451	604	3981

$\chi^2 = 37.29$ df = 5 p = .00

Chi-Square for Sex of In-House Users by Occupation

SEX	OCCUPATION									
	professional	manager	skilled	clerical	student	home-maker	retired	unem-ployed	other	Total
Male	700	144	292	152	411	8	219	175	10	2,111
Female	518	55	126	222	455	299	136	60	2	1,873
Total	1,218	199	418	374	866	307	355	236	12	3,984

$\chi^2 = 492.65$ df = 8 p = .00

Chi-Square for Sex of In-House Users by Reason for Coming to the Library

SEX	REASON FOR COMING TO THE LIBRARY										
	return mat'ls	bring child	attend library program	school assignment	get info	meet person	attend meeting	check out mat'ls	in-house use	other	Total
Male	289	42	17	139	65	29	8	664	785	70	2,108
Female	309	131	26	234	50	19	22	758	283	41	1,873
Total	598	173	43	373	115	48	30	1,422	1,068	111	3,981

$\chi^2 = 320.10$ df = 9 p = .00

Appendix A-9

ONE-WAY ANALYSIS OF VARIANCE: IN-HOUSE USE BY AGE, EDUCATION AND OCCUPATION, FOR ALL IN-HOUSE USERS AND THOSE WHO USED MATERIALS "FOR A LONGER PERIOD OF TIME"

One-Way Analysis of Variance: In-House Use by Age

Age	No.	Mean	Standard Deviation	Standard Error
15-19	276	6.4	6.98	0.42
20-39	1749	5.6	5.49	0.13
40-59	613	6.0	6.53	0.26
Over 60	300	4.7	5.42	0.31
Total	2938	5.7	5.87	0.11

F = 5.13 df = 2937 p = 0.00 N = 2938

One-Way Analysis of Variance: In-House Use by Age For Patrons Who Used Material "For a Longer Period of Time"

Age	No.	Mean	Standard Deviation	Standard Error
15-19	162	7.3	7.13	0.56
20-39	905	6.2	5.37	0.18
40-59	307	6.4	7.41	0.42
Over 60	171	5.0	6.38	0.49
Total	1545	6.2	6.15	0.16

F = 3.83 df = 1544 p = .009

Appendix A-9, p. 2

One-Way Analysis of Variance: In-House Use by Education

Education	No.	Mean	Standard Deviation	Standard Error
Grades 1-12 (includes high school graduation)	624	5.9	6.72	0.27
Up to 2 years of college	521	5.7	5.30	0.23
More than 2 years of college (no degree)	395	5.6	6.23	0.31
Bachelor's degree	587	5.3	5.74	0.23
Some graduate work	342	6.2	6.36	0.34
Master's or Ph.D.	461	5.5	4.93	0.23
Total	2930	5.7	5.88	0.11

F = 1.26 df = 2929 p = 0.28 N = 2930

One-Way Analysis of Variance: In-House Use by Education For Patrons Who Used Material "For a Longer Period of Time"

Education	No.	Mean	Standard Deviation	Standard Error
Grades 1-12 (includes high school graduation)	352	6.5	7.12	.38
Up to 2 years of college	290	6.4	5.78	.34
More than 2 years of college (no degree)	215	6.3	7.36	.50
Bachelor's degree	284	5.7	4.79	.28
Some graduate work	168	6.4	6.23	.48
Master's or Ph.D.	232	5.9	5.22	.34
Total	1541	6.2	6.16	.16

F = .71 df = 1540 p = .62

One-Way Analysis of Variance: In-House Use by Occupation

Occupation	No.	Mean	Standard Deviation	Standard Error
Professional	910	5.8	5.44	0.18
Manager or Proprietor	141	6.5	6.07	0.51
Skilled or unskilled worker	313	5.3	4.99	0.28
Clerical or sales worker	293	5.5	6.39	0.37
Student	636	5.8	5.80	0.23
Homemaker	227	6.2	6.90	0.46
Retired	242	4.9	6.59	0.42
Unemployed	162	5.0	5.66	0.44
Other	7	6.0	8.02	3.03
Total	2931	5.7	5.84	0.11

F = 1.61 df = 2930 p = 0.12 N = 2931

One-Way Analysis of Variance: In-House Use by Occupation For Patrons Who Used Material "For a Longer Period of Time"

Occupation	No.	Mean	Standard Deviation	Standard Error
Professional	426	6.6	5.86	0.28
Manager or Proprietor	66	7.5	6.82	0.84
Skilled or unskilled worker	166	6.1	5.44	0.42
Clerical or sales worker	150	6.3	7.53	0.61
Student	379	6.3	5.85	0.30
Homemaker	84	6.2	5.90	0.64
Retired	158	4.9	6.60	0.53
Unemployed	108	5.6	6.00	0.57
Other	7	6.0	8.00	3.03
Total	1544	6.2	6.20	0.16

F = 1.54 df = 1543 p = .14

Appendix A-10

t-TESTS: NUMBER OF ITEMS USED IN-HOUSE BY GENDER FOR ALL IN-HOUSE USERS AND THOSE WHO USED MATERIALS "FOR A LONGER PERIOD OF TIME"

t-test for Independent Samples:
Number of Items Used in the Library by Gender

Sex	No.	Mean	Standard Deviation	Standard Error
Male		5.3	5.4	.14
Female		6.0	5.7	.16

df = 2876 t = -3.59 p = .00

t-test for Independent Samples:
Number of Items Used in the Library by Gender "For a Longer Period of Time"

Sex	No.	Mean	Standard Deviation	Standard Error
Male	896	5.8	6.07	.20
Female	651	6.7	6.22	.24

df = 1546 t = 7.28 p = .007

Appendix A-11

t-TEST FOR INDEPENDENT SAMPLES
NUMBER OF ITEMS CHECKED OUT BY GENDER

Sex	No.	Mean	Standard Deviation	Standard Error
Male	1396	3.2	2.94	.08
Female	2090	4.4	4.05	.09

df = 3484 t = -9.23 p = .00

Appendix A-12

COMBINED PEARSON CORRELATIONS FOR ROCKINGHAM COUNTY, DAUPHIN COUNTY, AND MINNEAPOLIS

	Q	CIRC	VC	FTE	REF Q	COUNT
Q	-- --	.94* .00	.98* .00	.98* .00	.97* .00	.98* .00
CIRC	.94* .00	-- --	.98* .00	.95* .00	.98* .00	.90* .00
VC	.98* .00	.98* .00	-- --	.99* .00	1.0* .00	.94* .00
FTE	.98* .00	.95* .00	.99* .00	-- --	.99* .00	.94* .00
REF Q	.97* .00	.98* .00	1.0* .00	.99* .00	-- --	.94* .00
COUNT	.98* .00	.90* .00	.94* .00	.94* .00	.94* .00	-- --

* significant at .05 or less

Q = total number of materials used in the library based on reports by questionnaire respondents by library for each questionnaire day

CIRC = total daily circulation reported by library for each questionnaire day

VC = total daily visitor count reported by library for each questionnaire day

FTE = total full-time equivalent of public service staff for each questionnaire day

REF Q = total number of non-directional reference questions by library for each questionnaire day (Some libraries do not separate reference questions by type.)

COUNT = total number of materials found on tables and other surfaces by library for each questionnaire day

APPENDIX B

SUMMARY AND ANALYSIS TABLES FOR THE ADULT INTERVIEWS

B-1: Summary of Adult Interview Responses

B-2: Age, Sex, and Reason for Coming by Occupation

B-3: Age, Sex, and Occupation by Reason for Coming

B-4: Average Number of Materials Used In-House by Type of Material and Duration of Use for Each Library and All Libraries Combined

B-5: Summary of Data Collected for Selected Variables

B-6: Ratios of In-House Use for Selected Variables

B-7: Chi-Squares for Number of Items Used by Type of Material, Duration of Use and Sex

B-8: Chi-Squares for Type of Material Used by Sex

B-9: Chi-Squares for Sex of In-House Users by Education, Occupation, and Reason for Coming to the Library

B-10: One-Way Analysis of Variance: In-House Users by Age, Education and Occupation for All In-House Users and for Those Who Used Materials "For a Longer Period of Time"

B-11: t-tests: Number of Items Used In-House by Gender For All In-House Users and Those Who Used Materials "For a Longer Period of Time"

B-12: Combined Correlations for Rockingham County, Dauphin County, and Minneapolis

Appendix B-1

SUMMARY OF ADULT INTERVIEW RESPONSES*

	All Libraries	Arlington Heights	Dallas Central	Dauphin County	Iowa City	Minneapolis Central	Rockingham County
(Q.1) Did you use any books, magazines, or newspapers in this visit? (Number of responses/% of total)							
yes	1028/48%	341/45%	236/57%	106/40%	114/49%	201/53%	30/28%
no	1132/52%	423/55%	177/43%	156/60%	117/51%	180/47%	79/72%
(Q.2A) Did you use fiction books? (Number of responses/% of total) How many? (Number of items/mean number per user)							
yes	250/12%	107/14%	55/13%	28/11%	16/7%	41/11%	3/3%
no	1910/88%	657/86%	358/87%	234/89%	215/93%	340/89%	106/97%
just a minute	557/4.6	157/3.4	114/4.4	114/6.0	64/8.0	105/5.0	3/1.5
longer period	119/2.5	74/2.7	22/2.8	5/1.2	6/1.5	12/2.4	--
(Q.2B) Did you use nonfiction books? (Number of responses/% of total) How many? (Number of items/mean number per user)							
yes	663/31%	216/28%	174/42%	69/26%	62/27%	132/35%	10/9%
no	1497/69%	548/72%	239/58%	193/74%	169/73%	249/65%	99/91%
just a minute	1487/5.4	370/3.9	484/6.1	151/4.4	127/6.4	345/7.3	10/10.0
longer period	845/3.7	289/3.2	191/4.3	91/3.8	62/3.3	183/4.6	29/3.2
(Q.2C) Did you use magazines? (Number of responses/% of total) How many? (Number of items/mean number per user)							
yes	325/15%	118/15%	49/12%	32/12%	51/22%	59/16%	16/15%
no	1835/85%	646/85%	364/88%	230/88%	180/78%	322/84%	93/85%
just a minute	366/3.4	89/2.5	48/3.7	23/1.6	120/4.4	75/5.0	11/2.8
longer period	388/2.7	134/2.4	52/2.7	35/2.7	77/2.7	41/2.3	49/4.1
(Q.2D) Did you use newspapers? (Number of responses/% of total) How many? (Number of items/mean number per user)							
yes	213/10%	67/9%	35/8%	24/9%	24/10%	54/14%	9/8%
no	1947/90%	697/91%	378/92%	238/91%	207/90%	327/86%	100/92%
just a minute	106/2.7	19/1.4	56/14.0	8/1.3	14/1.8	7/1.2	2/2.0
longer period	191/2.3	63/2.0	21/3.5	27/1.9	23/1.8	40/3.1	17/2.4

	All Libraries	Arlington Heights	Dallas Central	Dauphin County	Iowa City	Minneapolis Central	Rockingham County
(Q.3) How many books, magazines, or newspapers are you taking out? (Number of items/Mean number per user)							
	4242/4.1	1482/4.1	661/4.7	628/3.7	427/4.7	734/3.3	310/5.3
(Q.4) Do you have a library card? (Number of responses/% of total)							
yes	1867/86%	691/90%	314/76%	235/90%	199/86%	330/87%	98/90%
no	293/14%	73/10%	99/24%	27/10%	32/14%	51/13%	11/10%
(Q.5) How much time did you spend in the library today?[(a)] (Number of responses/% of total)							
(1)	1147/53%	445/58%	190/46%	159/61%	112/49%	168/44%	73/67%
(2)	879/41%	285/37%	179/44%	101/38%	94/41%	187/49%	33/30%
(3)	100/5%	26/3%	28/7%	2/1%	18/8%	25/7%	1/1%
(4)	27/1%	8/1%	13/3%	--	3/1%	1/**	2/2%
(Q.6) Why did you come to the library?[(b)] (Number of responses/% of total)							
(1)	299/14%	131/17%	57/14%	40/15%	23/10%	40/11%	8/7%
(2)	58/3%	19/2%	7/2%	16/6%	7/3%	3/1%	6/6%
(3)	18/1%	2/**	12/3%	1/**	1/**	2/**	--
(4)	166/8%	34/4%	17/4%	41/16%	41/18%	26/7%	7/6%
(5)	371/17%	114/15%	93/23%	28/11%	30/13%	98/26%	8/7%
(6)	19/1%	3/**	5/1%	1/**	4/2%	4/1%	2/2%
(7)	13/1%	3/**	2/**	4/2%	--	1/**	3/3%
(8)	748/35%	285/38%	114/28%	96/37%	74/32%	134/35%	45/41%
(9)	225/10%	60/8%	67/17%	14/5%	30/13%	46/12%	8/7%
(10)	223/10%	109/14%	29/7%	21/8%	18/8%	24/6%	22/20%
(Q.7) Are you male or female? (Number of responses/% of total)							
Male	1041/49%	346/45%	250/62%	100/38%	109/48%	199/53%	37/34%
Female	1103/51%	418/55%	156/38%	162/62%	119/52%	176/47%	72/66%
(Q.8) In which age bracket do you belong? (Number of responses/% of total)							
15-19	146/7%	33/4%	26/6%	40/15%	27/12%	13/3%	7/6%
20-39	1154/54%	329/43%	244/60%	107/41%	169/74%	252/66%	53/49%
40-59	529/25%	237/31%	98/24%	71/27%	24/11%	65/17%	34/31%
60+	317/15%	161/21%	41/10%	43/16%	8/4%	49/13%	15/14%

Appendix B-1, p. 3.

	All Libraries	Arlington Heights	Dallas Central	Dauphin County	Iowa City	Minneapolis Central	Rockingham County
(Q.9) What is your occupation?[c] (Number of responses/% of total)							
(1)	644/30%	197/26%	168/41%	72/28%	60/27%	126/33%	21/19%
(2)	119/6%	42/6%	28/7%	11/4%	5/2%	26/7%	7/6%
(3)	201/9%	49/6%	56/14%	20/8%	11/5%	47/12%	18/16%
(4)	184/9%	44/6%	47/12%	20/8%	13/6%	47/12%	13/12%
(5)	362/17%	87/12%	46/11%	45/17%	110/49%	63/17%	11/10%
(6)	304/14%	185/24%	25/6%	51/20%	16/7%	8/2%	19/17%
(7)	246/12%	126/17%	25/6%	40/15%	4/2%	39/10%	12/11%
(8)	67/3%	25/3%	10/2%	3/1%	5/2%	18/5%	6/6%
(9)	11/**	4/**	2/**	--	--	3/1%	2/2%
(Q.10) What is the extent of your education?[d] (Number of responses/% of total)							
(1)	444/21%	141/19%	81/20%	101/38%	19/8%	63/17%	39/36%
(2)	343/16%	113/15%	59/14%	46/18%	24/11%	70/19%	31/28%
(3)	395/14%	104/14%	51/12%	19/7%	59/26%	58/16%	4/4%
(4)	520/24%	220/29%	104/25%	42/16%	42/19%	92/25%	20/18%
(5)	222/10%	81/11%	46/11%	21/8%	33/15%	38/10%	3/3%
(6)	310/14%	98/13%	69/17%	33/13%	48/21%	50/14%	12/11%

* Some questions have been abbreviated.
** Less than 0.5%

(a) 1. Less than 30 minutes
2. 1/2 to 2 hours
3. More than 2 but less than 4 hours
4. 4 or more hours

(b) 1. Return materials
2. Bring a child
3. Attend a program
4. Do school assignment
5. Get information from a librarian
6. Meet someone
7. Attend a meeting
8. Check out materials
9. Use materials in the library
10. Other

(c) 1. Professional
2. Manager
3. Skilled or unskilled worker
4. Clerical or sales worker
5. Student
6. Homemaker
7. Retired
8. Unemployed
9. Other

(d) 1. Grades 1-12
2. 1-2 years' college
3. 2 or more years' college; no degree
4. Bachelor's degree
5. Graduate work
6. Master's or Ph.D.

Appendix B-2

AGE, SEX, AND REASON FOR COMING BY OCCUPATION

	Professional	Manager	Skilled or Unskilled Worker	Clerical or Sales	Student	Home-maker	Retired	Unem-ployed	Other
AGE									
15-19	0	0	5/2%	9/5%	128/35%	0	0	1/2%	0
20-39	397/62%	59/50%	136/68%	112/61%	226/62%	160/54%	2/1%	46/69%	7/64%
40-59	217/34%	53/44%	53/26%	53/29%	8/2%	100/33%	22/9%	18/27%	3/27%
60+	29/4%	8/7%	7/4%	9/5%	0	39/13%	222/90%	2/3%	1/9%
Total	643/100%	119/101%	201/100%	183/100%	362/99%+	299/100%	246/100%	67/101%	11/100%
SEX									
Male	345/54%	94/79%	133/67%	66/36%	186/52%	6/2%	154/63%	40/60%	8/73%
Female	294/46%	25/21%	66/33%	116/64%	175/48%	298/98%	91/37%	27/40%	2/37%
Total	639/100%	119/100%	199/100%	182/100%	361/100%	304/100%	245/100%	67/100%	10/100%
REASONS FOR COMING (Number of respondents/% of column total)									
To return materials	88/14%	15/13%	28/14%	31/17%	25/7%	66/22%	37/15%	7/10%	2/18%
To bring child to the library	20/3%	0	3/2%	6/3%	2/1%	27/9%	0	0	0
To attend a library program	6/1%	0	0	1/1%	0	5/2%	6/2%	0	0
To do a school assignment	14/2%	0	3/2%	6/3%	137/38%	5/2%	0	0	0
To get information (not a school assignment)	140/22%	29/25%	47/24%	27/15%	44/12%	23/8%	27/15%	20/30%	2/18%
To meet someone	11/2%	1/1%	2/1%	1/1%	2/1%	1/*	1/*	0	0
To attend a meeting	5/1%	1/1%	2/1%	0	0	4/1%	1/*	0	0
To check out materials	234/36%	44/37%	63/32%	64/35%	86/24%	132/44%	98/40%	19/28%	2/18%
To use materials in the library	58/9%	13/11%	35/18%	27/15%	36/10%	7/2%	34/14%	13/19%	0
Other	68/11%	15/13%	17/8%	18/10%	29/8%	31/10%	31/13%	8/12%	5/46%
Tota	644/100%	118/100%	200/100%	181/100%	361/100%	301/100%	235/100%	67/100%	11/100%

* less than 0.5%

Appendix B-3

AGE, SEX, AND OCCUPATION BY REASON FOR COMING

	Return Materials	Bring Child	Attend Library Program	Do School Assignment	Get Information	Meet Someone	Attend Meeting	Check Out Materials	In-house Use	Other
AGE										
15-19	11/4%	0	0	61/37%	12/3%	1/5%	0	34/5%	13/6%	14/6%
20-39	141/47%	48/71%	6/35%	93/56%	230/62%	10/53%	3/23%	390/52%	124/55%	100/45%
40-59	99/33%	11/19%	3/18%	11/7%	82/22%	7/37%	7/54%	199/27%	48/21%	59/27%
60+	47/16%	0	8/47%	0	46/12%	1/5%	3/23%	122/16%	40/18%	49/22%
Total	298/100%	58/100%	17/100%	165/100%	370/100%	19/100%	13/100%	745/100%	225/100%	222/100%
SEX										
Male	122/41%	11/19%	5/29%	81/49%	219/59%	10/53%	2/15%	304/41%	167/75%	114/51%
Female	175/59%	47/81%	12/71%	85/51%	150/41%	9/47%	11/85%	442/59%	56/25%	108/49%
Total	297/100%	58/100%	17/100%	166/100%	369/100%	19/100%	13/100%	746/100%	223/100%	222/100%
OCCUPATION										
Professional	88/29%	20/34%	66/33%	14/8%	140/38%	11/58%	5/38%	234/32%	58/26%	68/31%
Manager	15/5%	0	0	0	29/8%	1/5%	1/8%	44/6%	13/6%	15/7%
Skilled or unskilled	28/9%	3/5%	0	3/2%	47/13%	2/10%	2/15%	63/8%	35/16%	17/8%
Clerical or sales	31/10%	6/10%	1/6%	6/4%	27/7%	1/5%	0	64/9%	27/12%	18/8%
Student	25/8%	2/3%	0	137/83%	44/12%	2/10%	0	86/12%	36/16%	29/13%
Homemaker	66/22%	27/47%	5/28%	5/3%	23/6%	1/5%	4/31%	132/18%	7/3%	31/14%
Retired	37/12%	0	6/33%	0	37/10%	1/5%	1/8%	98/13%	34/15%	31/14%
Unemployed	7/2%	0	0	0	20/5%	0	0	19/3%	13/6%	8/4%
Other	2/1%	0	0	0	2/*	0	0	2/*	0	5/2%
Total	298/100%	58/100%	78/100%	165/100%	369/100%	19/100%	13/100%	742/100%	223/100%	222/100%

* less than 0.5%

Appendix B-4

AVERAGE NUMBER OF MATERIALS USED IN-HOUSE BY TYPE OF MATERIAL AND DURATION OF USE FOR EACH LIBRARY AND ALL LIBRARIES COMBINED

	Mean	Median	Number of Users/% of All Respondents*	Number of Items Used
ALL LIBRARIES				
Fiction for a minute	4.6	3.0	122/5.6%	557
Fiction for longer	2.5	2.0	48/2.2%	119
Nonfiction for a minute	5.4	3.0	277/12.8%	1,487
Nonfiction for longer	3.7	3.0	227/10.5%	845
Magazines for a minute	3.4	2.0	108/5.0%	366
Magazines for longer	2.7	2.0	146/6.7%	388
Newspapers for a minute	2.7	1.0	39/1.8%	106
Newspapers for longer	2.3	1.0	84/3.9%	191
TOTAL	6.2	4.0	652/100%	4,059
ARLINGTON HEIGHTS				
Fiction for a minute	3.4	2.0	46/6.0%	157
Fiction for longer	2.7	2.0	27/3.5%	74
Nonfiction for a minute	3.8	3.0	96/12.6%	370
Nonfiction for longer	3.2	2.0	91/11.9%	289
Magazines for a minute	2.5	2.0	35/4.6%	89
Magazines for longer	2.4	2.0	55/7.6%	134
Newspapers for a minute	1.4	1.0	14/1.8%	19
Newspapers for longer	2.0	1.0	31/4.1%	63
TOTAL	5.2	4.0	230/100%	1,195
DALLAS CENTRAL				
Fiction for a minute	4.4	3.5	26/6.3%	114
Fiction for longer	2.8	2.0	8/1.9%	22
Nonfiction for a minute	6.1	4.0	79/19.0%	484
Nonfiction for longer	4.3	4.0	44/5.3%	191
Magazines for a minute	3.7	4.0	13/3.1%	48
Magazines for longer	2.7	2.0	19/4.6%	52
Newspapers for a minute	14.0	1.5	4/1.0%	56
Newspapers for longer	3.5	2.0	6/1.4%	21
TOTAL	7.3	5.0	136/100%	988

* Total does not equal sum of column because a reader may use items from more than one category.

Appendix B-4, p. 2.

	Mean	Median	Number of Users/% of All Respondents*	Number of Items Used
DAUPHIN COUNTY				
Fiction for a minute	6.0	5.0	19/7.3%	114
Fiction for longer	1.2	1.0	4/1.5%	5
Nonfiction for a minute	4.4	4.0	34/13.0%	151
Nonfiction for longer	3.8	3.0	24/9.2%	91
Magazines for a minute	1.6	1.5	14/5.3%	23
Magazines for longer	2.7	1.0	13/5.0%	35
Newspapers for a minute	1.3	1.0	6/2.3%	8
Newspapers for longer	1.9	1.0	14/5.3%	27
TOTAL	5.4	4.0	84/100%	454
IOWA CITY				
Fiction for a minute	8.0	5.5	8/3.4%	64
Fiction for longer	1.5	1.0	4/1.7%	6
Nonfiction for a minute	6.4	3.5	20/8.6%	127
Nonfiction for longer	3.3	2.0	19/8.2%	62
Magazines for a minute	4.4	3.0	27/11.6%	120
Magazines for longer	2.7	2.0	29/12.5%	77
Newspapers for a minute	1.8	1.0	8/3.4%	14
Newspapers for longer	1.8	1.0	13/5.6%	23
TOTAL	6.8	4.0	73/100%	493
MINNEAPOLIS CENTRAL				
Fiction for a minute	5.0	4.0	21/5.5%	105
Fiction for longer	2.4	1.0	5/1.3%	12
Nonfiction for a minute	7.3	3.0	47/12.3%	345
Nonfiction for longer	4.6	2.0	40/10.5%	183
Magazines for a minute	5.0	3.0	15/3.9%	75
Magazines for longer	2.3	1.0	18/4.7%	41
Newspapers for a minute	1.1	1.0	6/1.6%	7
Newspapers for longer	3.1	2.0	13/3.4%	40
TOTAL	8.1	5.0	100/100%	808
ROCKINGHAM COUNTY				
Fiction for a minute	1.5	1.5	2/1.8%	3
Fiction for longer	0.0	0.0	0/0%	0
Nonfiction for a minute	10.0	10.0	1/1.0%	10
Nonfiction for longer	3.2	3.0	9/8.3%	29
Magazines for a minute	2.8	2.5	4/3.7%	11
Magazines for longer	4.1	2.0	12/11.0%	49
Newspapers for a minute	2.0	2.0	1/1.0%	2
Newspapers for longer	2.4	2.0	7/6.4%	17
TOTAL	4.2	3.0	29/100%	121

Appendix B-5

SUMMARY OF DATA COLLECTED FOR SELECTED VARIABLES

	CIRC	VC	FTE	REF Q	COUNT	INT
Arlington Heights	*	*	9	343	1307	355
	*	*	7	233	1582	412
	*	*	8	205	1054	314
Dallas System	2238	2825	5	2461	*	68
	2879	2656	5	3166	*	429
	2186	2969	5	2315	*	491
Dauphin County	674	534	1.5	23	130	135
	1181	756	1.5	26	112	229
	831	557	1.5	28	67	39
Iowa City	1412	*	2	261	1140	188
	1240	*	2	145	721	159
	733	*	2	89	859	146
Minneapolis System	3677	3455	55	1649	7164	574
	3887	3701	55	1453	5735	150
	3402	2628	43	1256	3875	84
Rockingham County	408	288	2	66	110	27
	408	502	2	78	276	67
	296	253	2	35	94	27

* = data not provided

CIRC = total daily circulation reported by library for each interview day

VC = total daily visitor count reported by library for each interview day

FTE = total full time equivalent of public service staff for each interview day

REF Q = total number of non-directional reference questions for each interview day (Some libraries do not separate reference questions by type.)

COUNT = total number of materials found on tables and other surfaces for each interview day

INT = total number of materials used in the library based on reports by interview repondents for each interview day

Appendix B-6

RATIOS OF IN-HOUSE USE FOR SELECTED VARIABLES

Visitor Count	In-House Use/ Visitor Count	Ratio to 1 Visitor	Mean Ratio Per Library
Dallas System	68/2825	.02	.12
	429/2656	.16	
	491/2969	.17	
Dauphin County	135/ 534	.25	.21
	229/ 756	.30	
	39/ 557	.07	
Minneapolis System	574/3455	.17	.08
	150/3701	.04	
	84/2628	.03	
Rockingham County	27/ 288	.09	.11
	67/ 502	.13	
	27/ 253	.11	

FTE	In-House Use/ FTE	Ratio to 1 FTE	Mean Ratio Per Library
Arlington Heights	355/ 9.0	39.44	45.85
	412/ 7.0	58.86	58.86
	314/ 8.0	39.25	
Dallas System	68/ 5.0	13.60	65.87
	429/ 5.0	85.80	
	491/ 5.0	98.20	
Dauphin County	135/ 1.5	90.00	89.56
	229/ 1.5	152.67	
	39/ 1.5	26.00	
Iowa City	188/ 2.0	94.00	82.17
	159/ 2.0	79.50	
	146/ 2.0	73.00	
Minneapolis System	574/55.0	10.44	1.56
	150/55.0	2.73	
	84/43.0	1.95	
Rockingham County	27/ 2.0	13.50	20.17
	67/ 2.0	33.50	
	27/ 2.0	13.50	

Appendix B-6, p. 2

Number of Reference Questions	In-House Use/ No. of Reference Questions	Ratio to 1 Reference Question	Mean Ratio Per Library
Arlington Heights	355/ 343	1.03	1.44
	412/ 233	1.77	
	314/ 205	1.53	
Dallas System	68/2461	.03	.13
	429/3166	.14	
	491/2315	.21	
Dauphin County	135/ 23	5.87	5.36
	229/ 26	8.81	
	39/ 28	1.39	
Iowa City	188/ 261	.72	1.15
	159/ 145	1.10	
	146/ 89	1.64	
Minneapolis System	574/1649	.35	.17
	150/1453	.10	
	84/1256	.07	
Rockingham County	27/ 66	.41	.68
	67/ 78	.86	
	27/ 35	.77	

Circulation	In-House Use/ Circulation	Ratio to 1 Circulation	Mean Ratio Per Library
Dallas System	68/2238	.03	.13
	429/2879	.15	
	491/2186	.22	
Dauphin County	135/ 674	.20	.15
	229/1181	.19	
	39/831	.05	
Minneapolis System	574/3677	.16	.07
	150/3887	.04	
	84/3402	.02	
Rockingham County	27/ 408	.07	.11
	67/ 408	.16	
	27/ 269	.09	

Appendix B-7

CHI-SQUARES FOR NUMBER OF ITEMS USED BY TYPE OF MATERIAL, DURATION OF USE AND SEX

FICTION FOR A MINUTE

Number of Items Used	Male	Female	Total
1	5	10	15
2	11	19	30
3-9	4	16	20
10 or more	15	41	56
Total	35	86	121

$\chi^2 = 1.92$ df = 3 p = .59

FICTION FOR A LONGER PERIOD

Number of Items Used	Male	Female	Total
1-2	10	10	20
3 or more	10	18	28
Total	20	28	48

$\chi^2 = .48$ df = 1 p = .49

NON-FICTION FOR A MINUTE

Number of Items Used	Male	Female	Total
1	21	28	49
2	31	25	56
3	29	20	49
4	19	17	36
5-7	7	13	20
8-21	20	18	38
22 or more	12	17	29
Total	139	138	277

$\chi^2 = 6.17$ df = 6 p = .40

NON-FICTION FOR A LONGER PERIOD

Number of Items Used	Male	Female	Total
1	30	31	61
2	29	18	47
3	20	10	30
4	15	18	33
5	10	6	16
6-11	7	7	14
12 or more	12	12	24
Total	123	102	225

$\chi^2 = 5.28$ df = 6 p = .51

Appendix B-7, p. 2.

MAGAZINES FOR A MINUTE

Number of Items Used	Male	Female	Total
1	24	10	61
2	23	8	31
3	7	7	14
4	3	6	9
5-12	5	3	8
13 or more	3	9	12
Total	65	43	108

$\chi^2 = 13.61$ df = 5 p = .02

MAGAZINES FOR A LONGER PERIOD

Number of Items Used	Male	Female	Total
1	42	24	66
2	16	13	29
3	17	6	23
4-8	4	5	9
9 or more	6	12	18
Total	85	60	145

$\chi^2 = 8.53$ df = 4 p = .07

NEWSPAPERS FOR A MINUTE

Number of Items Used	Male	Female	Total
1	19	10	29
3-51	6	3	9
52 or more	1	0	1
Total	26	13	39

$\chi^2 = .52$ df = 2 p = .77

NEWSPAPERS FOR A LONGER PERIOD

Number of Items Used	Male	Female	Total
1	34	11	45
2	12	3	15
3-5	9	1	10
6 or more	10	3	13
Total	65	18	83

$\chi^2 = 1.05$ df = 3 p = .79

Appendix B-8

CHI-SQUARES FOR TYPE OF MATERIAL USED BY SEX

FICTION

Used Material	Male	Female	Total
Yes	947	949	1896
No	94	154	248
Total	1041	1103	2144

$\chi^2 = 12.26$ df = 1 p = .0005

NON-FICTION

Used Material	Male	Female	Total
Yes	672	813	1485
No	369	290	659
Total	1041	1103	2144

$\chi^2 = 20.66$ df = 1 p = .0000

MAGAZINES

Used Material	Male	Female	Total
Yes	838	983	1821
No	203	120	323
Total	1041	1103	2144

$\chi^2 = 30.44$ df = 1 p = .0000

NEWSPAPERS

Used Material	Male	Female	Total
Yes	890	1044	1934
No	151	59	210
Total	1041	1103	2144

$\chi^2 = 49.79$ df = 1 p = .0000

Appendix B-9

CHI-SQUARES FOR SEX OF IN-HOUSE USERS BY EDUCATION, OCCUPATION AND REASON FOR COMING TO THE LIBRARY

Chi-Square for Sex of In-House Users by Level of Education

	LEVEL OF EDUCATION						
SEX	Grades 1-12	1-2 years' college	2-4 years college, no degree	BA	Graduate Work	MA or PhD	Total
Male	96	74	80	135	64	111	560
Female	92	78	65	105	50	54	444
Total	188	152	145	240	114	165	1004

$\chi^2 = 13.68$ df = 5 p = .02

Chi-Square for Sex of In-House Users by Occupation

	OCCUPATION									
SEX	professional	manager	skilled	clerical	student	home-maker	retired	unem-ployed	other	Total
Male	186	38	80	42	108	2	79	24	2	561
Female	122	12	24	45	96	99	33	13	1	441
Total	308	50	104	87	204	101	112	37	3	1006

$\chi^2 = 162.22$ df = 8 p = .00

Chi-Square for Sex of In-House Users by Reason for Coming to the Library

	REASON FOR COMING TO THE LIBRARY									
SEX	return mat'ls	bring child	attend library program	school assignment	get info	meet person	check out mat'ls	in-house use	other	Total
Male	38	4	2	52	175	3	132	139	19	564
Female	34	23	3	50	106	2	168	40	18	444
Total	72	27	5	102	281	5	300	179	37	1008

$\chi^2 = 76.88$ df = 8 p = .00

Appendix B-10

ONE-WAY ANALYSIS OF VARIANCE: IN-HOUSE USERS BY AGE, EDUCATION AND OCCUPATION FOR ALL IN-HOUSE USERS AND FOR THOSE WHO USED MATERIALS "FOR A LONGER PERIOD OF TIME"

One-Way Analysis of Variance:
In-House Use by Age

Age	No.	Mean	Standard Deviation	Standard Error
15-19	58	6.8	5.83	0.77
20-39	369	6.5	8.98	0.47
40-59	135	5.8	7.56	0.65
Over 60	87	5.2	5.81	0.62
Total	649	6.2	8.08	0.32

F = 0.87 df = 648 p = .45 N = 649

One Way Analysis of Variance: In-House Use by Age
For Patrons Who Used Material "For a Longer Period of Time"

Age	No.	Mean	Standard Deviation	Standard Error
15-19	40	6.2	5.00	0.79
20-39	224	7.1	10.44	0.70
40-59	76	6.4	9.26	1.06
Over 60	58	5.3	6.00	0.79
Total	398	6.6	9.25	0.46

F = .67 df = 397 p = .57

One-Way Analysis of Variance:
In-House Use by Education

Education	No.	Mean	Standard Deviation	Standard Error
Grades 1-12 (includes high school graduation)	122	5.4	5.25	0.47
Up to 2 years of college	100	5.4	5.47	0.55
More than 2 years of college (no degree)	90	6.5	8.29	0.87
Bachelor's degree	152	6.3	8.81	0.71
Some graduate work	80	7.0	6.60	0.74
Master's or Ph.D.	102	7.2	11.95	1.18
Total	646	6.2	8.10	0.32

F = 0.94   df = 645   p = .46   N = 646

One-Way Analysis of Variance: In-House Use by Education
For Patrons Who Used Material "For a Longer Period of Time"

Education	No.	Mean	Standard Deviation	Standard Error
Grades 1-12 (includes high school graduation)	74	5.4	5.08	0.59
Up to 2 years of college	63	5.2	5.47	0.69
More than 2 years of college (no degree)	57	6.4	9.13	1.20
Bachelor's degree	88	7.3	10.11	1.08
Some graduate work	49	7.4	7.57	1.08
Master's or Ph.D.	65	8.2	14.47	1.79
Total	396	6.6	9.26	0.46

F = 1.07   df = 395   p = .38

Appendix B-10, p. 3

One-Way Analysis of Variance: In-House Use by Occupation

Occupation	No.	Mean	Standard Deviation	Standard Error
Professional	193	7.2	10.24	0.74
Manager or Proprietor	31	6.1	4.99	0.90
Skilled or unskilled worker	57	5.6	10.12	1.34
Clerical or sales worker	55	6.8	7.10	0.96
Student	139	6.3	7.05	0.60
Homemaker	72	5.8	6.35	0.77
Retired	75	4.7	5.59	0.65
Unemployed	22	4.8	3.53	0.75
Other	1	4.0		
Total	645	6.2	8.11	0.32

F = 0.86 df = 644 p = .55 N = 645

One-Way Analysis of Variance: In-House Use by Occupation For Patrons Who Used Material "For a Longer Period of Time"

Occupation	No.	Mean	Standard Deviation	Standard Error
Professional	115	8.3	12.49	1.16
Manager or Proprietor	13	5.2	3.42	0.95
Skilled or unskilled worker	40	6.2	11.80	1.87
Clerical or sales worker	34	7.6	7.43	1.27
Student	98	6.4	7.78	0.78
Homemaker	25	5.6	4.47	0.89
Retired	53	4.6	5.38	0.74
Unemployed	16	5.6	3.68	0.92
Other	1	4.0		
Total	395	6.7	9.27	0.47

F = .92 df = 394 p = .50

Appendix B-11

t-TESTS: NUMBER OF ITEMS USED IN-HOUSE BY GENDER FOR ALL IN-HOUSE USERS AND THOSE WHO USED MATERIALS "FOR A LONGER PERIOD OF TIME"

t-test for Independent Samples:
Number of Items Used in the Library by Gender

Sex	N	Mean	Standard Deviation	Standard Error
Male	398	4.9	5.5	0.28
Female	332	6.6	8.0	0.44

t = -3.48 df = 728 p = .001

t-test for Independent Samples:
Number of Items Used in the Library by Gender
"For a Longer Period of Time"

Sex	N	Mean	Standard Deviation	Standard Error
Male	226	5.7	6.22	0.41
Female	171	7.9	12.06	0.92
Total	397	6.6	9.25	0.46

t = 5.35 df = 396 p = .02

Appendix B-12

COMBINED CORRELATIONS FOR ROCKINGHAM COUNTY, DAUPHIN COUNTY, AND MINNEAPOLIS

	INT	CIRC	VC	FTE	REF Q	COUNT
INT	-- --	.58* .05	.61* .04	.58* .05	.61* .04	.70* .22
CIRC	.57* .05	-- --	.99* .00	.98* .00	.98* .00	.95* .00
VC	.61* .04	.99* .00	-- --	.99* .00	.98* .00	.98* .00
FTE	.58* .05	.98* .00	.99* .00	-- --	1.0* .00	.98* .00
REF Q	.61* .04	.98* .00	.98* .00	1.0* .00	-- --	.99* .00
COUNT	.70* .02	.95* .00	.98* .00	.98* .00	.99* .00	-- --

* significant at .05 or less

INT = total number of materials used in the library based on reports by interview respondents for each interview day

CIRC = total daily circulation reported by library for each interview day

VC = total daily visitor count reported by library for each interview day

FTE = total full time equivalent of public service staff for each interview day

REF Q = total number of non-directional reference questions for each interview day (Some libraries do not separate reference questions by type.)

COUNT = total number of materials found on tables and other surfaces for each interview day

APPENDIX C

SUMMARY AND ANALYSIS TABLES FOR THE COUNT OF MATERIALS ON TABLES, UNOBTRUSIVE OBSERVATION AND THE ILLINOIS PUBLIC LIBRARY COOPERATIVE RESEARCH GROUP STUDY

C-1: Summary Data on Count of Materials on Tables by Library and Type of Material, for All Survey Days Combined

C-2: Summary of Data on Unobtrusive Observation

C-3: Average Number of Materials Used In-House by Type of Material and Duration of Use (All Libraries in The Illinois Public Library Cooperative Research Group Study)

C-4: One-Way Analysis of Variance: In-House Use by Age, Education and Occupation (All Libraries in the Illinois Public Library Cooperative Research Group Study)

C-5: t-Test for Independent Samples: Mean Number of Items Used In-House by Sex for All In-House Users and for Those Who Used Materials for 10 Minutes or More (All Libraries in the Illinois Public Library Cooperative Research Group Study)

Appendix C-1

SUMMARY DATA ON COUNT OF MATERIALS ON TABLES BY LIBRARY AND TYPE OF MATERIAL, FOR ALL SURVEY DAYS COMBINED

Part A. For All Libraries.

PRINT MATERIALS

Type	Nonfiction	Fiction	Reference	Newspapers	Easy & Picture	Magazines	Pamphlets	Other
Adult								
no dots	9,749	2,336	9,362	2,221	--	7,421	1,163	1,044
one dot	679	92	2,314	466	--	956	263	78
Total	10,428	2,428	11,676	2,687	--	8,377	1,426	1,122
Children's								
no dots	2,131	1,622	262	--	2,221	293	58	465
one dot	80	76	29	--	104	14	6	30
Total	2,211	1,698	291	--	2,325	307	64	495

NONPRINT MATERIALS

Type	Phonodiscs	Audio Cassettes	Films	Video Formats	Microfilm	Computer Software	Toys, Games, Etc.	Other
Adult								
no dots	549	94	5	7	1,041	40	--	55
one dot	56	0	0	1	126	0	--	21
Total	605	94	5	8	1,167	40	--	76
Children's								
no dots	197	122	136	19	4	17	372	7
one dot	15	11	3	0	3	4	126	1
Total	212	133	139	19	7	21	498	8

Appendix C-1, p. 2.

Part B. For Each Library Separately.

	ADULT PRINT MATERIALS						
Library	Nonfiction	Fiction	Reference	Newspapers	Magazines	Pamphlets	Other
Arlington Heights							
no dots	1,012	180	771	530	1,197	22	22
one dot	123	21	297	24	136	4	3
Total	1,135	201	1,068	554	1,333	26	25
Dauphin County							
no dots	200	32	112	50	110	0	5
one dot	0	0	4	0	1	0	0
Total	200	32	116	50	111	0	5
Iowa City							
no dots	1,448	298	450	165	725	40	67
one dot	176	8	43	25	97	1	0
Total	1,626	306	493	190	822	41	67
Minneapolis (system)							
no dots	6,952	1,765	7,876	1,403	5,276	1,098	948
one dot	373	61	1,931	395	698	257	75
Total	7,325	1,826	9,807	1,798	5,974	1,355	1,023
Rockingham County							
no dots	137	61	153	73	113	3	2
one dot	5	2	39	22	24	1	0
Total	142	63	192	95	137	4	2

Appendix C-1, p. 3.

Library	Phonodiscs	Audio Cassettes	Films	Video Formats	Microfilm	Computer Software	Other
			ADULT NONPRINT MATERIALS				
Arlington Heights							
no dots	43	19	1	5	362	0	30
one dot	8	0	0	1	7	0	20
Total	51	19	1	6	369	0	50
Dauphin County							
no dots	0	0	0	0	1	0	0
one dot	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0
Iowa City							
no dots	121	35	0	2	57	0	10
one dot	0	0	0	0	1	0	1
Total	121	35	0	2	58	0	11
Minneapolis (System)							
no dots	385	40	4	0	524	0	15
one dot	48	0	0	83	98	0	0
Total	433	40	4	83	922	0	15
Rockingham County							
no dots	0	0	0	0	14	1	0
one dot	0	0	0	0	10	0	0
Total	0	0	0	0	24	1	0

Appendix C-1, p. 4.

CHILDREN'S PRINT MATERIALS

Library	Nonfiction	Fiction	Reference	Easy & Picture	Magazines	Pamphlets	Other
Arlington Heights							
no dots	441	236	93	669	67	55	0
one dot	23	5	10	47	9	6	0
Total	464	241	103	716	76	61	0
Dauphin County							
no dots	71	23	1	4	6	0	3
one dot	0	0	0	0	0	0	0
Total	71	23	1	4	6	0	3
Iowa City							
no dots	506	283	73	624	158	0	54
one dot	11	7	12	8	2	0	1
Total	517	290	85	632	160	0	55
Minneapolis (System)							
no dots	1,014	1,035	82	773	56	3	408
one dot	40	64	6	45	2	0	29
Total	1,054	1,099	88	818	58	3	437
Rockingham County							
no dots	99	45	13	151	6	0	0
one dot	6	0	1	4	1	0	0
Total	105	45	14	155	7	0	0

Appendix C-1, p. 5.

CHILDREN'S NONPRINT MATERIALS

Library	Phonodiscs	Audio Cassettes	Films	Video Formats	Microfilm	Computer Software	Toys, Games, Etc.	Other
Arlington Heights								
no dots	21	102	126	6	0	0	317	0
one dot	1	11	3	0	0	0	122	0
Total	22	113	129	6	0	0	439	0
Dauphin County								
no dots	43	9	0	13	0	0	0	0
one dot	0	0	0	0	0	0	0	0
Total	43	9	0	13	0	0	0	0
Iowa City								
no dots	47	3	3	0	0	0	4	5
one dot	1	0	0	0	0	0	0	0
Total	48	3	3	0	0	0	4	5
Minneapolis (System)								
no dots	86	8	6	0	0	17	36	2
one dot	13	0	0	0	0	4	2	1
Total	99	8	6	0	0	21	38	3
Rockingham County								
no dots	0	0	1	0	4	0	15	0
one dot	0	0	0	0	3	0	2	0
Total	0	0	1	0	7	0	17	0

APPENDIX C-2

SUMMARY OF DATA ON UNOBTRUSIVE OBSERVATION (ALL LIBRARIES)

Type of Material	Number of Users	Number of Items Used	Mean	Median
Books, Unspecified	27	65	2.4	2.0
Fiction Books	56	137	2.4	1.0
Nonfiction Books	188	464	2.5	2.0
Magazines	94	164	1.7	1.0
Newspapers	71	91	1.3	1.0
Microfilm	12	30	2.5	1.5
Records	8	26	3.2	1.5
Audiotapes	3	4	1.3	1.0
Total	459	981	2.1	2.0

Appendix C-3

AVERAGE NUMBER OF MATERIALS USED IN-HOUSE BY TYPE OF MATERIAL AND DURATION OF USE (ALL LIBRARIES IN THE ILLINOIS PUBLIC LIBRARY COOPERATIVE RESEARCH GROUP STUDY)

Type and Duration	Mean	Median	Number of Users*	Number of Non-Users	Number of Items Used
Fiction					
up to 2 minutes	4.2	3.0	189	1,262	799
2-10 minutes	2.4	2.0	77	1,419	183
more than 10 minutes	2.8	2.0	79	1,416	225
Total	3.9	3.0	309	1.235	1,207
Nonfiction					
up to 2 minutes	2.8	2.0	135	1,347	382
2-10 minutes	2.9	3.0	123	1,374	351
more than 10 minutes	2.8	2.0	96	1,399	264
Total	3.3	2.0	301	1,243	997
Reference					
up to 2 minutes	2.7	2.0	136	1,328	372
2-10 minutes	2.1	2.0	214	1,257	449
more than 10 minutes	2.4	2.0	171	1,263	415
Total	2.9	2.0	430	1,114	1,236
Nonbook Materials					
up to 2 minutes	2.4	2.0	171	1,280	403
2-10 minutes	2.3	2.0	236	1,220	548
more than 10 minutes	2.7	2.0	220	1,216	490
Total	2.8	2.0	541	1,003	1,541
Total Materials					
up to 2 minutes	4.0	3.0	484	2,782	1,956
2-10 minutes	2.9	2.0	527	2,739	1,531
more than 10 minutes	3.4	2.0	442	2,824	1,494
Total	4.7	3.0	1,055	2,211	4,981

* Does not include individuals who used materials but did not record a specific number of items used.

Appendix C-4

ONE-WAY ANALYSIS OF VARIANCE: IN-HOUSE USE BY AGE, EDUCATION AND OCCUPATION (ALL LIBRARIES IN THE ILLINOIS PUBLIC LIBRARY COOPERATIVE RESEARCH GROUP STUDY)

ANOVA for In-House Users: Mean Number of Items Used by Age

Age	No.	Mean	Standard Deviation	Standard Error
Less than 20	156	5.8	7.26	0.58
20-29	423	4.3	4.26	0.21
30-39	278	4.7	5.07	0.30
40-49	140	4.5	4.14	0.35
50-59	22	5.2	4.37	0.93
60-69	19	3.3	2.16	0.50
70+	11	7.2	6.63	2.00
Total	1,049	4.7	5.04	0.16

F = 2.50   df = 1,048   p = .02

Scheffe procedure produced no significant differences between groups at .05 level of significance.

ANOVA for In-House Users: Mean Number of Items Used by Education

Educational Level	No.	Mean	Standard Deviation	Standard Error
Elementary School	17	5.9	7.27	1.76
High School	303	5.2	6.20	0.36
College	460	4.4	4.28	0.20
More than 4 years of college	267	4.7	4.56	0.28
Total	1,047	4.7	5.03	0.16

F = 2.02   df = 1,046   p = .11

Appendix C-4, p. 2.

ANOVA for In-House Users:
Mean Number of Items Used by Occupation

Occupation	No.	Mean	Standard Deviation	Standard Error
Professional	348	4.4	4.38	0.23
Manager	58	3.7	2.97	0.39
Clerical or sales worker	91	4.4	3.90	0.41
Unskilled or skilled worker	97	5.0	5.46	0.55
Student	185	5.3	6.59	0.48
Homemaker	151	4.9	4.64	0.38
Retired or unemployed	110	4.6	4.51	0.43
Other	6	5.3	6.34	2.59
Total	1,046	4.7	4.91	0.15

F = 1.18 df = 1,045 p = .31

Appendix C-5

t-TEST FOR INDEPENDENT SAMPLES: MEAN NUMBER OF ITEMS USED IN-HOUSE BY SEX FOR ALL IN-HOUSE USERS AND FOR THOSE WHO USED MATERIALS FOR 10 MINUTES OR MORE (ALL LIBRARIES IN THE ILLINOIS PUBLIC LIBRARY COOPERATIVE RESEARCH GROUP STUDY)

t-Test for Independent Samples: Mean Number of Items Used In-House by Sex for All In-House Users

Sex	No.	Mean	Standard Deviation	Standard Error
Male	492	4.2	4.2	0.19
Female	547	5.2	5.6	0.24

t = -3.09 df = 1,037 p = .00

t-Test for Independent Samples: Mean Number of Items Used by Sex for Individuals Using Materials for 10 Minutes or More

Sex	No.	Mean	Standard Deviation	Standard Error
Male	236	4.9	5.1	0.33
Female	202	6.2	6.8	0.48

t = -2.28 df = 436 p = .02

APPENDIX D

OTHER SUMMARY TABLES

D-1: Summary of Number of Reference Questions, Visitor Count, Circulation, FTE, Acquisitions Budget and Materials Used In-House by Library

D-2: Correlations of In-House Use With Other Selected Variables by Data Collection Method

Appendix D-1

SUMMARY OF NUMBER OF REFERENCE QUESTIONS, VISITOR COUNT, CIRCULATION, FTE, ACQUISITIONS BUDGET AND MATERIALS USED IN-HOUSE BY LIBRARY

						In-House Use From		
Library	Reference Questions	Visitors	Circulation	FTE	Acquisitions Budget	Table Count	Interview	Questionnaire
Arlington Heights	1,623	--	2,659	8	$356,000	7,248	1,243	1,458
Dauphin County	157	3,776	5,288	8.5	28,842	688	473	1,206
Iowa City	1,011	8,373	9,167	12	134,600	5,571	490	2,583
Minneapolis (Central)	8,925	19,616	24,918	307	1,306,113	34,031	860	6,534
Rockingham County	354	2,100	2,185	13	26,142	1,005	127	732

Reference Questions = total number of non-directional reference questions by library for each survey day (Some libraries do not separate reference questions by type.)

Visitor Count = total daily visitor count reported by library for each survey day

Circulation = total daily circulation reported by library for each survey day

FTE = total full time equivalent of public service staff for each survey day

Acquisitions Budget = annual acquisitions budget

CORRELATIONS OF IN-HOUSE USE WITH OTHER SELECTED VARIABLES BY DATA COLLECTION METHOD

Variable	Correlation with In-House Use/ Probability that true correlation is greater than zero		
	Questionnaire	Interview	Table Count
Reference questions	.97/.01	.84/.08	.99/.01
Visitors count	.99/.00	.91/.04	.98/.01
Circulation	.99/.00	.93/.04	.98/.01
FTE public service staff	.96/.02	.82/.09	.99/.01
Acquisitions Budget	.98/.01	.85/.07	.99/.01

N = 5

Reference Questions = total number of non-directional reference questions by library for each survey day (Some libraries do not separate reference questions by type.)

Visitors = total daily visitor count reported by library for each survey day

Circulation = total daily circulation reported by library for each survey day

FTE = total full time equivalent of public service staff for each survey day

Acquisitions Budget = annual acquisitions budget

APPENDIX E

SAMPLE FORMS AND INSTRUCTIONS FOR THEIR USE FOR THE COALITION FOR PUBLIC LIBRARY RESEARCH AND THE ILLINOIS PUBLIC LIBRARY COOPERATIVE RESEARCH GROUP

E-1: Procedures for Counting Library Materials

E-2: Instructions for the Use of Dots

E-3: Count of Materials Used and Red Dot Tally Form

E-4: Instructions for Handing Out Questionnaires

E-5: Adult Questionnaire

E-6: Instructions for Conducting Interviews

E-7: Adult Interview Schedule

E-8: Instructions for Unobtrusive Observation

E-9: Unobtrusive Observation Form

E-10: Illinois Public Library Cooperative Research Group User Survey

PROCEDURES FOR COUNTING LIBRARY MATERIALS

The purpose of the "Count of Materials Used" forms is to collect on an hourly basis the number of items used in the library. The forms divide library materials into four categories: Print for Children, Nonprint for Children, Print for Adults, Nonprint for Adults. PLEASE MAKE SURE THAT YOU ARE USING THE CORRECT FORM WHEN RECORDING THE DATA!

The individuals collecting this data may use whatever technique is most effective. The purpose is to ensure that all materials left on surfaces or circulated from public service desks for in-house use are counted.

Below are some suggestions that may help in completing this form.

1. Check surfaces at the beginning of the day to make sure that there is no material from the previous day on these surfaces.
2. Use a "working copy" of the form during the day and prepare a final copy at the end of the day.
3. Post plenty of "Survey in Progress" forms to deter patrons from reshelving of materials.
4. Use pencil when completing the forms.
5. Try to have materials reshelved as quickly as possible. First priority should be reference materials.
6. Count materials placed by patrons at the end of book shelves.
7. Consider that an item was "used" if it needs to be returned to its original location. (REMEMBER we are counting items used by patrons. If a reference librarian uses the material with the patron it is not to be included. However, if the librarian gives the material to the patron for his or her use, it is to be counted. As a rule, if you are unsure, count the material.)
8. Items that are either bound (magazines) or circulated collectively such as sets of record are counted as 1 (one) item.
9. If you have questions, contact your data collector.

INSTRUCTIONS FOR THE USE OF DOTS

When collecting and counting the materials found on tables and other surfaces, it is also necessary to place a dot on the inside front cover of each item.

A different color dot will be used on each of the counting days. Place only one dot in an item on a given day. No item should have more than one dot of the same color. Do not remove a dot affixed on a previous day. If the dot can not be placed on the cover, select another location. The dotting procedure is explained below.

DAY 1: Put designated color dot on the inside front cover of any material found on tables or surfaces on this day.

DAY 2: Put designated color dot on the inside front cover of any material found on tables or surfaces on this day.

Record the number of items that had one dot from the previous counting day on the counting form.

DAY 3: Put designated color dot on the inside front cover of any material found on tables or surfaces on this day.

Record the number of items that had one or two dots from the previous counting day on the counting form. REMEMBER to record separately the number of items that had only one dot and those that had two dots.

DAY 4: Put designated color dot on the inside from cover of any material found on tables or surfaces on this day.

Record separately the number of items that had one, two or three dots from the previous counting days on the counting form.

DAY 5: Put designated color dot on the inside front cover of any material found on tables or surfaces on this day.

Record separately the number of items that had one, two, three, or four dots from the previous counting days on the counting form.

DAY 6: Record separately the number of items that had one, two, three, four, or five dots from the previous counting days on the counting form.

Appendix E-3

COUNT OF MATERIALS USED & RED DOT TALLY FORM
(retyped from original form to show substantive information only)

NAME OF LIBRARY______________________________________
DATE_________________________

ADULT PRINT

Material	9 AM	10 AM	11 AM	Noon	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	Total
1. Nonfiction books														
no dots														
1 dot														
2. Fiction books														
no dots														
1 dot														

3. Reference books
4. Newspapers
5. Magazines
6. Pamphlets, pictures, vertical file materials
7. Other print materials

ADULT NONPRINT
1. Phonodiscs
2. Audio cassettes and 8 track tapes
3. 16mm film, 8mm film and filmstrips
4. Video formats (tapes, cassettes, discs)
5. Microfilm
6. Computer software
7. Other nonprint materials

CHILDREN PRINT
1. Nonfiction books
2. Fiction books
3. Reference books
4. Easy and picture books
5. Magazines
6. Pamphlets, pictures, vertical file materials
7. Other print materials

CHILDREN NONPRINT
1. Phonodiscs
2. Audio cassettes and 8 track tapes
3. 16mm film, 8mm film and filmstrips
4. Video formats (tapes, cassettes, discs)
5. Microfilm
6. Computer software
7. Toys, games and puppets
8. Other nonprint materials

E-4

INSTRUCTIONS FOR HANDING OUT QUESTIONNAIRES

1. Individuals should hand out questionnaires to all individuals entering/leaving the library as long as the individual is 10 years old or older.

2. Patrons 14 years old or younger should receive the children's form.

3. Patrons older than 14 should receive the adult form.

4. When handing out the questionnaire, request that the patron fill out and return the questionnaire to the designated location.

5. Make no comment regarding the purpose of the study. If pressed by the patron you may indicate that the library is interested in how its patrons use the library, but do not speak directly about "in-house" use if you can avoid it.

6. Make no comment that would influence the response to particular questions by the patron. A patron's response can be affected if he/she thinks YOU expect them to answer in a certain way. Be friendly and polite, but try to be neutral in regard to why the survey is being conducted.

7. Try to be nonjudgmental and nonthreatening to children. Remember that they may think you are trying to test or check on their library use.

8. If you have questions, talk to the data collector.

E-5

ADULT QUESTIONNAIRE

Please answer the following questions to help us improve our service. Do not sign your name. In some of the questions, you will be asked to remember how many items you used in the library today; if you do not remember the exact number give us your best estimate.

1. Did you use any books, magazines or newspapers in the library today? (If no, go to question 3.) Yes________ No________

2. When people visit the library they use books, magazines or newspapers in different ways:

   Some people use them for "just a minute" by reading or skimming only a few pages;

   Some people use them for "a longer period of time," perhaps by reading one or more books, articles or chapters.

   Please tell us HOW MANY books, magazines or newspapers you used in the library today for "just a minute" or for "a longer period of time." (Include adult and juvenile materials but do not count the materials you are taking out today.)

	NUMBER used for "just a minute"	NUMBER used for a longer time
Fiction/Novels	________	________
Nonfiction	________	________
Magazines	________	________
Newspapers	________	________

3. How many books, magazines or newspapers are you taking out on this visit? ________

4. Do you have a library card that lets you take out materials from the ________________________? Yes________ No________

PLEASE ANSWER THE QUESTIONS BELOW BY CIRCLING THE APPROPRIATE NUMBER. PLEASE CIRCLE ONLY ONE ANSWER FOR EACH QUESTION.

5. How much time did you spend in the library on this visit?

Less than thirty minutes....................................	1
½ to 2 hours..	2
More than 2 hours but less than 4 hours.....................	3
4 or more hours...	4

PLEASE TURN OVER QUESTIONNAIRE

Appendix E-5
ADULT QUESTIONNAIRE, p. 2.

6. What was the main reason for your visit to the library today? (REMEMBER--Circle only one number)

To return books or other library materials	1
To bring my child(ren) to the library	2
To come to a library sponsored program	3
To do a school assignment	4
To get information from a librarian (not for school)	5
To meet someone	6
To come to a meeting not sponsored by the library (clubs, organizations)	7
To find books, films or other library materials to take home	8
To use books, or other library materials in the library (not for school)	9
Other (Reason:____________________________________)	10

____

7. SEX

Male	1
Female	2

8. AGE

Less than 15	1
15-19	2
20-39	3
40-59	4
60 and over	5

9. OCCUPATION

Professional (teacher, engineer, accountant, etc.)	1
Manager or proprietor (farm owner, store manager, etc.)	2
Skilled, semi-skilled or unskilled worker (farm laborer, carpenter, factory worker, etc.)	3
Clerical or sales	4
Student	5
Homemaker	6
Retired	7
Unemployed	8
Other (give occupation:______________________________)	9

10. How far have you gone in school? (Circle only one answer)

1st through 12th grade	1
Up to two years of college	2
More than two years of college (no degree)	3
Bachelors Degree	4
Some graduate work	5
Masters or Ph.D. degree	6

Thank you for answering these questions. Please put this form in the box provided for that purpose.

E-6

INSTRUCTIONS FOR CONDUCTING INTERVIEWS

1. Interviews are conducted with patrons who are 10 years old or older.

2. For patrons between 10 and 14 years of age, use the children's interview form.

3. For patrons older than 14 years use the adult interview form.

4. As soon as you are ready to interview, select the first patron that is about to leave the library. For all subsequent interviews, as soon as you are finished with the last interview select the very next patron who is about to leave the library. DO NOT WAIT FOR A PARTICULAR PATRON. YOU MUST DO THE NEXT PATRON WHO IS ABOUT TO LEAVE THE LIBRARY.

5. Tell the patron that the interview will take just a few minutes.

6. Find a location that will have a minimum of disruption and where the responses of the patron can not be overheard.

7. Ask the questions in the order in which they are presented on the interview schedule.

8. Read the question in a neutral manner! If the patron believes you are looking for a certain answer you may affect the response.

9. You must make a concerted effort to treat each patron in the same way. Be courteous and business-like.

10. Mark down the responses as you are given them. Do not try to remember the responses, don't delay recording the answers!

11. At the end of the interview, thank the patron for his/her participation. Record any problems you had with the interview at bottom of the form. Be specific, especially if you feel that the patron did not understand the questions, or if you feel that the patron was insincere.

12. Be particularly careful when interviewing children. They may be more inclined to answer questions based on their notion of what YOU expect them to say. Try to be nonjudgmental and nonthreatening.

E-7

ADULT INTERVIEW SCHEDULE

This interview will last just a few minutes. Mostly, I will be asking you about the NUMBER of books and other library materials you used today. If you don't remember the exact numbers, give me your best estimate. Your answers are completely confidential; we are not asking your name.

Let's begin with...

1. Did you use any books, magazines, or newspapers in the library on this visit? (If no, go to question 3.) .... yes____
no____

2. When people visit the library they use books, magazines or newspapers in different ways:

Some people may use them for "just a minute" by reading or skimming only a few pages;

Some people may use them for a longer period of time, perhaps by reading several pages or a whole book.

I am going to read several types of library materials to you. Please tell me how many of each type you used in the library today for "just a minute" or for "a longer period of time."

INCLUDE BOTH ADULT AND JUVENILE MATERIAL BUT DO NOT INCLUDE BOOKS YOU ARE TAKING OUT TODAY!

(A) Did you use any fiction such as novels or short stories in the library today? .... yes____
no____

(i) How many fiction items did you use for "just a minute" and how many did you use for a longer period of time?

"just a minute" ______
longer period ______

(B) Did you use any nonfiction books today? .... yes____
no____

(i) How many nonfiction books did you use for "just a minute" and how many did you use for a longer period of time?

"just a minute" ______
longer period ______

(C) Did you use any magazines in the library today? .... yes_____
no_____

(i) How many magazines did you use for "just a minute" and how many did you use for a longer period of time?

"just a minute" _______

longer period _______

(D) Did you use any newspapers in the library today? .... yes_____
no_____

(i) How many newspapers did you use for "just a minute" and how many did you use for a longer period of time?

"just a minute" _______

longer period _______

3. How many books, newspapers or magazines are you taking out from the library today? .... ________

4. Do you have a library card that lets you take out materials from this library system? .... yes_____
no_____

5. How much time did you spend in the library today?

Less than thirty minutes	1
1/2 to 2 hours	2
Less than 2 but more than 4 hours	3
4 or more hours	4

Appendix E-7
ADULT INTERVIEW SCHEDULE, p. 3.

6. What is the main reason why you came to the library today?

____

____

(INTERVIEWER, circle appropriate category based on response. If respondent has difficulty with this question offer the reasons below.)

To return books or other library materials 1
To bring my child(ren) to the library 2
To come to a library program 3
To do a school assignment 4
To get some information (not for school) 5
To meet someone 6
To come for a meeting 7
To find books, films, or other library materials to take home 8
To read books, or other library materials in the library 9
Other (Reason: ____
____ 10

7. Interviewer please indicate sex of individual.
male 1
female 2

8. I am going to give you some age brackets. Please tell me in which age bracket you belong:

Less than 15 1
15-19 2
20-39 3
40-59 4
Over 60 5

9. We are almost done. Just two questions to go. First, what is your occupation? ____

____

(INTERVIEWER, please circle appropriate category based on response. If respondent has difficulty with this question, please list the categories below.)

Professional (teacher, accountant, etc.) 1
Manager or proprietor (farm owner, store manager, etc.) 2
Skilled, semi-skilled, or unskilled worker (farm laborer,
  carpenter, factory worker) 3
Clerical or sales 4
Student 5
Homemaker 6
Retired 7
Unemployed 8
Other (please record ____) ... 9

Appendix E-7
ADULT INTERVIEW SCHEDULE, p. 4.

10. The final question concerns how far you got in school.

1st through 12th (includes high school grad.)	1
Up to two years of college	2
More than two years of college (no degree)	3
Bachelors Degree	4
Some graduate work	5
Master's or Ph.D.	6

Thank you very much for allowing us to interview you. You have given us valuable information for our survey.

E-8

INSTRUCTIONS FOR UNOBTRUSIVE OBSERVATION

The purpose of unobtrusive observation is to measure the in-house use of library materials without depending on the patron's recollection. It is vital that the observer remain inconspicuous.

1. Ensure that the appropriate library administrators and staff are aware that unobtrusive observation is occurring and who is observing.

2. Select a section of the library for your observation. This section could be identified in a variety of ways:

   Subject Division such as the History or Science Department;

   Type of Material provided such as the record or fiction section;

   Dewey number such as the 790's.

3. Select a different section for observation each observation day.

4. Do not observe more than 2 people at the same time.

5. DO NOT OBSERVE CHILDREN under the age of 14. DO NOT OBSERVE IN THE CHILDREN'S ROOM.

6. Alternate interviews and unobtrusive observations in one hour increments.

7. Select an inconspicuous location which provides maximum surveillance.

8. If the patron moves to another section DO NOT move with the patron.

9. Observe patron for as long as you can unless the patron moves from your section or the patron is in your section for longer than thirty minutes.

10. If possible, record the following information:

    A. Type of materials being used
       e.g. fiction, nonfiction, general Dewey number

    B. How long each item was used (in minutes)

    C. Nature of the use
       e.g. patron took notes, patron read material
       patron took book to check out

    D. Sex and approximate age of the patron

E-9

UNOBTRUSIVE OBSERVATION FORM

SECTION UNDER OBSERVATION ______________________________

INDIVIDUAL UNDER OBSERVATION

1. Sex M F

2. Age ______

For EACH item used specify:

TYPE OF MATERIAL (fiction, nonfiction, magazine, newspaper, record, tape, etc.)	TIME USED	NATURE OF USE

DURATION OF OBSERVATION ______________________

DATE OF OBSERVATION ______________________

NAME OF OBSERVER ______________________

Appendix E-10

Illinois Public Library Cooperative Research Group User Survey

Please answer the following questions to help us improve service. Do not sign your name.

1. HOW MANY BOOKS OR OTHER MATERIALS ARE YOUR BORROWING FROM THE LIBRARY TODAY? .... ____________

2. DID YOU USE ANY LIBRARY MATERIALS IN THE LIBRARY TODAY? Yes________
(If "No," go to Question 4.) No________

3. When people use books, magazines and other materials in the library, they may look at them for just a few minutes or they may use them for a longer period of time. Below is a chart which we would like you to fill out. Please tell us HOW MANY fiction, nonfiction, reference books and non-book materials you used today and tell us how long you used them by putting your answers under the columns with time limits at the top.

	NUMBER used under 2 min.	NUMBER used 2 to 10 min.	NUMBER used 10 or more min.
Fiction books/novels			
Circulating nonfiction books			
Reference books			
Non-book materials (magazines, newspapers, phonorecords, microfilm, etc.)			

4. ARE YOU MALE OR FEMALE? .... Male 1
Female 2

5. WHAT IS YOUR PRINCIPAL OCCUPATION? (Cirle one number)
   a. Professional (teacher, engineer, accountant, etc.)................ 1
   b. Manager or proprietor (farm owner, store manager, etc.)........... 2
   c. Clerical or sales.. 3
   d. Unskilled, semi-skilled or skilled worker (farm laborer, carpenter, factory operative, etc.)........................ 4
   e. Student, at any level.. 5
   f. Housewife.. 6
   g. Retired or unemployed.. 7
   h. Other (what? ____)....... 8

6. HOW FAR HAVE YOU GONE IN SCHOOL? (Circle one number)
   a. No more than completion of elementary school...................... 1
   b. Some or all of high school.. 2
   c. Some or all of college.. 3
   d. Study beyond 4 years of college................................... 4

7. IN WHAT AGE GROUP ARE YOU? .... Less than 20.............. 1
20 - 39.................. 2
40 - 59.................. 3
60 or over............... 4

Thank you for answering these questions. Please put this form in the box provided for that purpose.